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(21) International Application Number: PCT/US99/24206 (22) International Filing Date: 15 October 1999 (15.10.99) (30) Priority Data: 60/104,436 15 October 1998 (15.10.98) US (63) Related by Continuation (CON) or Continuation-in-Part (CIP) to Earlier Application US 60/104,436 (CIP) Filed on 15 October 1998 (15.10.98) (71) Applicant (for all designated States except US): GENETICS INSTITUTE, INC. [US/US]; 87 Cambridge Park Drive, Cambridge, MA 02140 (US). (72) Inventors; and (75) Inventors/Applicants (for US only): JACOBS, Kenneth [US/US]; 151 Beaumont Avenue, Newton, MA 02160 (US). MCCOY, John, M. [GB/US]; 56 Howard Street, Reading, MA 01867 (US). LaVALLIE, Edward, R. [US/US]; 113 Ann Lee Road, Harvard, MA 01451 (US). COLLINS-RACIE, Lisa, A. [US/US]; 124 School Street, Acton, MA 01720 (US). EVANS, Cheryl [GB/US]; 18801 Bent Willow Circle, Germantown, MD 20874 (US).	MERBERG, David [US/US]; 2 Orchard Drive, Acton, MA 01720 (US). TREACY, Maurice [IE/IE]; 12 Foxrock Court, Dublin 18 (IE). BOWMAN, Michael, R. [US/US]; 50 Aldrich Road, Canton, MA 02021 (US). (74) Agent: SPRUNGER, Suzanne, A.; American Home Products Corporation, Patent & Trademark Department – 2B, One Campus Drive, Parsippany, NJ 07054 (US). (81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>	
(54) Title: SECRETED EXPRESSED SEQUENCE TAGS (sESTs)		
(57) Abstract Secreted expressed sequence tags (sESTs) isolated from a variety of human tissue sources are provided.		

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SECRETED EXPRESSED SEQUENCE TAGS (sESTs)

5

FIELD OF THE INVENTION

The present invention provides novel polynucleotides which are expressed sequence tags (ESTs) for secreted proteins.

BACKGROUND OF THE INVENTION

Gargantuan efforts have been employed by various investigational projects to randomly sequence portions of naturally-occurring cDNAs. The rationale behind this approach to identification and sequencing genes is founded in two basic principles: (1) that transcribed cDNAs represent the product of the most important genes, namely those that are actually expressed *in vivo*, and (2) that efforts to sequence genes and other portions of the genome of target organisms which are not actually expressed wastes substantial effort on areas not likely to yield genetic information of therapeutic importance. Thus, the high-throughput sequencing efforts focus on only those portions of the genome which are expressed. The randomly produced cDNA sequences represent "expressed sequence tags" or "ESTs", which identify and can be used as probes for the longer, full-length cDNA or genomic sequence from which they were transcribed.

Although this "shortcut" approach to genomic sequencing presents savings of effort compared to sequencing of the complete genome, it still produced a vast array of ESTs which may not be directly useful as protein therapeutics. To date, the majority of protein-related drug discovery has focused on the use of secreted proteins to produce a desired therapeutic effect. Since the EST approach theoretically identifies all expressed proteins, it produces an EST library which contains a mixture of secreted proteins (such as hormones, cytokines and receptors) and non-secreted proteins (such as, for example, metabolic enzymes and cellular structural proteins), without identifying which ESTs correspond to proteins falling into either category. As a result, these methods are not optimally tailored to the needs of investigators searching for secreted proteins because they must separate the secreted "wheat" from the non-secreted "chaff", wasting effort and resources in the process.

Co-assigned U.S. Patent No. 5,536,637, which is incorporated herein by reference, provides methods for focusing genomic sequencing efforts on sequences encoding the secreted proteins which are of most interest for identification of protein therapeutics. The '637 patent discloses a "signal sequence trap" which selectively identifies ESTs for secreted proteins, namely "secreted expressed sequence tags" or "sESTs". It is to these sESTs that the present invention is directed.

SUMMARY OF THE INVENTION

The present invention provides for sESTs isolated from a variety of human RNA/cDNA sources.

In preferred embodiments, the present invention provides an isolated
5 polynucleotide comprising a nucleotide sequence selected from the group consisting of:

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or a complement of said sequence.

25 In other embodiments, the present invention provides an isolated
 polynucleotide consisting of a nucleotide sequence selected from the group consisting
 of:

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or a complement of said sequence.

In further embodiments, the present invention provides an isolated polynucleotide consisting essentially of a nucleotide sequence selected from the group consisting of:

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or a complement of said sequence.

In yet other embodiments, the present invention provides an isolated polynucleotide comprising a nucleotide sequence which hybridizes to a sequence selected from the group consisting of:

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NO:2485, SEQ ID NO:2486, SEQ ID NO:2487, SEQ ID NO:2488, SEQ ID
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NO:2493, SEQ ID NO:2494, SEQ ID NO:2495, SEQ ID NO:2496, SEQ ID
20 NO:2497, SEQ ID NO:2498, SEQ ID NO:2499, and SEQ ID NO:2500;

or to a complement of said sequence.

The invention also provides for proteins encoded by the above-described polynucleotides. In certain preferred embodiments, the polynucleotide is operably linked to an expression control sequence. The invention also provides a host cell,
25 including bacterial, yeast, insect and mammalian cells, transformed with such polynucleotide compositions. Also provided by the present invention are organisms that have enhanced, reduced, or modified expression of the gene(s) corresponding to the polynucleotide sequences disclosed herein.

Processes are also provided for producing a protein, which comprise:

- 30 (a) growing a culture of the host cell transformed with such polynucleotide compositions in a suitable culture medium; and
(b) purifying the protein from the culture.

The protein produced according to such methods is also provided by the present invention.

Protein compositions of the present invention may further comprise a pharmaceutically acceptable carrier. Compositions comprising an antibody which specifically reacts with such protein are also provided by the present invention.

Methods are also provided for preventing, treating or ameliorating a medical condition which comprises administering to a mammalian subject a therapeutically effective amount of a composition comprising a protein of the present invention, and/or a polynucleotide of the present invention, and a pharmaceutically acceptable carrier.

10 DETAILED DESCRIPTION

The nucleotide sequences of the sESTs of the present invention are reported in the Sequence Listing below. Table 2 lists the "Clone ID Nos." assigned by applicants to each SEQ ID NO: in the Sequence Listing.

15 Table 2

Each pair of entries in this table consists of the SEQ ID NO (e.g., 1, 2, etc.) followed by the Clone ID No. for such sequence (e.g., AA239, AA249, etc.).

20	1	AA239	18	AC365	35	AE327	52	AE479
	2	AA249	19	AC384	36	AE358	53	AE502
	3	AA25	20	AC407	37	AE38	54	AE503
	4	AA292	21	AD599	38	AE382	55	AE520
	5	AA306	22	AD647	39	AE396	56	AE545
	6	AA336	23	AD655	40	AE399	57	AE549
25	7	AA34	24	AD803	41	AE401	58	AE57
	8	AA342	25	AE103	42	AE402	59	AE570
	9	AA356	26	AE210	43	AE403	60	AE595
	10	AA360	27	AE238	44	AE417	61	AE601
	11	AA38	28	AE252	45	AE424	62	AE606
30	12	AA43	29	AE289	46	AE435	63	AE610
	13	AA50	30	AE290	47	AE440	64	AE64
	14	AA64	31	AE302	48	AE443	65	AE648
	15	AC15	32	AE303	49	AE445	66	AE660
	16	AC334	33	AE314	50	AE468	67	AE674
35	17	AC349	34	AE319	51	AE471	68	AE693

	69	AE696	106	AH556	143	AM198	180	AT205
	70	AE90	107	AH601	144	AM260	181	AT211
	71	AF18	108	AH604	145	AM262	182	AT212
	72	AF217	109	AH612	146	AM292	183	AT215
5	73	AF221	110	AH622	147	AM338	184	AT216
	74	AF271	111	AH63	148	AM340	185	AT368
	75	AF276	112	AH652	149	AM341	186	AU112
	76	AF28	113	AH666	150	AM483	187	AU117
	77	AF42	114	AH8	151	AM57	188	AV10
10	78	AF49	115	AJ102	152	AM574	189	AV110
	79	AF51	116	AJ118	153	AM58	190	AV117
	80	AF52	117	AJ149	154	AM690	191	AV129
	81	AF54	118	AJ151	155	AM691	192	AV141
	82	AF85	119	AJ75	156	AM699	193	AV152
15	83	AG107	120	AJ88	157	AM748	194	AV156
	84	AG121	121	AK296	158	AM764	195	AV179
	85	AG175	122	AK384	159	AM776	196	AV189
	86	AG237	123	AK421	160	AM830	197	AV22
	87	AG99	124	AK489	161	AM87	198	AV227
20	88	AH106	125	AK492	162	AM880	199	AV30
	89	AH123	126	AK533	163	AM900	200	AV6
	90	AH144	127	AK554	164	AM905	201	AV66
	91	AH191	128	AK595	165	AM916	202	AV7
	92	AH196	129	AK600	166	AM946	203	AV92
25	93	AH230	130	AK672	167	AM964	204	AW242
	94	AH239	131	AK698	168	AN89	205	AX2
	95	AH356	132	AK759	169	AO90	206	AY123
	96	AH372	133	AM1019	170	AP132	207	AY177
	97	AH38	134	AM1044	171	AP240	208	AY225
30	98	AH383	135	AM1057	172	AP244	209	AY254
	99	AH389	136	AM1085	173	AQ51	210	AY322
	100	AH406	137	AM1111	174	AR260	211	AY344
	101	AH418	138	AM1122	175	AS286	212	AY412
	102	AH51	139	AM1131	176	AS32	213	AY434
35	103	AH547	140	AM157	177	AS34	214	AY448
	104	AH55	141	AM184	178	AS98	215	AY97
	105	AH555	142	AM185	179	AT106	216	AZ278

	217	BB8	254	BD368	291	BV20	328	D137
	218	BB9	255	BD451	292	BV223	329	D147
	219	BC128	256	BD453	293	BZ398	330	D24
	220	BC130	257	BD471	294	BZ595	331	DD23
5	221	BC132	258	BD54	295	C282	332	DD239
	222	BC170	259	BD81	296	C545	333	DD254
	223	BC226	260	BG46	297	C662	334	DD344
	224	BC246	261	BG52	298	CA1	335	DD523
	225	BC253	262	BG54	299	CA100	336	DD70
10	226	BC262	263	BG65	300	CA104	337	DD77
	227	BC272	264	BG66	301	CA105	338	DG288
	228	BC294	265	BG68	302	CA106	339	DG319
	229	BC295	266	BG77	303	CA114	340	DH1147
	230	BC300	267	BG78	304	CA119	341	DI396
15	231	BC303	268	BH126	305	CA127	342	DL486
	232	BC306	269	BH212	306	CA133	343	DO441
	233	BC308	270	BH349	307	CA15	344	DP101
	234	BC317	271	BI101	308	CA157	345	DP102
	235	BC351	272	BJ35	309	CA165	346	DP105
20	236	BC370	273	BJ65	310	CA173	347	DP106
	237	BC390	274	BL150	311	CA176	348	DP109
	238	BC409	275	BN13	312	CA180	349	DP111
	239	BC410	276	BN185	313	CA183	350	DP120
	240	BC420	277	BN203	314	CA3	351	DP122
25	241	BC430	278	BN34	315	CA41	352	DP127
	242	BC456	279	BN381	316	CA44	353	DP131
	243	BC457	280	BN73	317	CA51	354	DP135
	244	BC467	281	BO13	318	CA57	355	DP140
	245	BC471	282	BO342	319	CA79	356	DP147
30	246	BC473	283	BO356	320	CA94	357	DP175
	247	BC72	284	BO41	321	CC53	358	DP180
	248	BC75	285	BO541	322	CJ210	359	DP97
	249	BD112	286	BP116	323	CJ384	360	DU499
	250	BD249	287	BP578	324	CL164	361	DY39
35	251	BD283	288	BP582	325	CR1187	362	DY691
	252	BD306	289	BP822	326	CR552	363	DZ23
	253	BD353	290	BT138	327	D130	364	EF109

	365	EK610	402	GL404	439	HS11	476	IS114
	366	EM161	403	GL417	440	HS110	477	IS20
	367	EN426	404	GL428	441	HS154	478	IS337
	368	FE109	405	GL44	442	HS165	479	IS475
5	369	FH109	406	GL50	443	HS177	480	IS566
	370	FQ712	407	GW159	444	HS25	481	IS589
	371	FT124	408	GW263	445	HS278	482	IT213
	372	FT214	409	GW38	446	HS34	483	IT217
	373	FT222	410	GW48	447	HS351	484	IT240
10	374	FT318	411	GW75	448	HS413	485	IT250
	375	FT358	412	GZ440	449	HS432	486	IT263
	376	FT58	413	H1138	450	HS460	487	IT63
	377	FT62	414	H118	451	HS465	488	IT98
	378	FU149	415	H1305	452	HS470	489	IU103
15	379	FU171	416	H1317	453	HS66	490	IU176
	380	FU284	417	H1419	454	HS662	491	IU190
	381	FU309	418	H1428	455	HV233	492	IU202
	382	FU344	419	H1496	456	HX92	493	IU23
	383	FZ150	420	H206	457	IB60	494	IU61
20	384	G81	421	H237	458	IE42	495	IU63
	385	GA348	422	H298	459	IF338	496	IU88
	386	GC471	423	H31	460	IF50	497	IW47
	387	GC479	424	H318	461	IF605	498	IW66
	388	GE444	425	H455	462	IJ1129	499	IW73
25	389	GJ217	426	H617	463	IJ1193	500	IW79
	390	GJ270	427	H83	464	IJ1442	501	IW90
	391	GJ286	428	H857	465	IJ1542	502	IX118
	392	GL106	429	H863	466	IJ181	503	IX125
	393	GL110	430	H905	467	IJ226	504	IX62
30	394	GL140	431	H963	468	IK125	505	IY40
	395	GL15	432	HB1142	469	IK418	506	IY47
	396	GL278	433	HB1209	470	IK58	507	IY58
	397	GL294	434	HE153	471	IK93	508	IZ47
	398	GL32	435	HE212	472	IR162	509	J218
35	399	GL323	436	HL458	473	IR30	510	J59
	400	GL330	437	HR211	474	IR31	511	JA64
	401	GL366	438	HS100	475	IR70	512	JB17

	513	JF15	550	K113	587	K39	624	KB57
	514	JF64	551	K115	588	K40	625	KG2
	515	JF76	552	K122	589	K409	626	KH13
	516	JK39	553	K139	590	K417	627	KI195
5	517	JK45	554	K148	591	K421	628	KI253
	518	JL55	555	K155	592	K422	629	KI362
	519	JM33	556	K168	593	K426	630	KI493
	520	JM49	557	K176	594	K433	631	KJ1
	521	JM64	558	K178	595	K446	632	KJ10
10	522	JM75	559	K18	596	K464	633	KJ120
	523	JN33	560	K213	597	K483	634	KJ124
	524	JN85	561	K22	598	K488	635	KJ131
	525	JQ1	562	K227	599	K490	636	KJ141
	526	JQ29	563	K232	600	K51	637	KJ142
15	527	JS7	564	K233	601	K511	638	KJ19
	528	JT113	565	K235	602	K524	639	KJ190
	529	JT118	566	K240	603	K525	640	KJ215
	530	JT170	567	K254	604	K529	641	KJ218
	531	JT6	568	K255	605	K568	642	KJ231
20	532	JT61	569	K264	606	K60	643	KJ247
	533	JT62	570	K271	607	K619	644	KJ258
	534	JT65	571	K280	608	K640	645	KJ320
	535	JT77	572	K281	609	K67	646	KJ321
	536	JW117	573	K285	610	K71	647	KJ360
25	537	JW21	574	K289	611	K80	648	KJ41
	538	JW35	575	K294	612	K82	649	KJ46
	539	JW48	576	K30	613	KA105	650	KJ469
	540	JW91	577	K302	614	KA107	651	KJ480
	541	JY112	578	K314	615	KA108	652	KJ539
30	542	JY162	579	K32	616	KA113	653	KJ600
	543	JY2	580	K322	617	KA115	654	KJ611
	544	JY6	581	K330	618	KA3	655	KJ623
	545	JY61	582	K361	619	KA46	656	KJ63
	546	JZ13	583	K363	620	KA97	657	KJ664
35	547	JZ33	584	K368	621	KB137	658	KJ689
	548	JZ95	585	K370	622	KB2	659	KJ699
	549	K10	586	K38	623	KB49	660	KJ713

	661	KJ723	698	KN606	735	KX136	772	LE75
	662	KJ727	699	KN628	736	KX170	773	LF191
	663	KJ737	700	KN678	737	KY2	774	LF250
	664	KJ740	701	KO148	738	KY49	775	LF268
5	665	KJ748	702	KO174	739	KZ135	776	LF273
	666	KJ772	703	KO179	740	KZ165	777	LF307
	667	KJ777	704	KO258	741	KZ208	778	LF341
	668	KJ78	705	KO266	742	KZ288	779	LF378
	669	KJ793	706	KO319	743	KZ312	780	LF400
10	670	KJ8	707	KO332	744	KZ35	781	LF416
	671	KJ804	708	KO481	745	KZ46	782	LF470
	672	KJ807	709	KO50	746	KZ56	783	LF56
	673	KJ82	710	KO508	747	L102	784	LF6
	674	KJ853	711	KO575	748	L106	785	LG101
15	675	KJ870	712	KP86	749	L108	786	LG128
	676	KJ876	713	KQ27	750	L12	787	LG151
	677	KJ879	714	KR169	751	L129	788	LG155
	678	KJ96	715	KR190	752	L137	789	LG174
	679	KL109	716	KR221	753	L153	790	LG189
20	680	KL118	717	KR240	754	L161	791	LG237
	681	KL823	718	KR299	755	L189	792	LG26
	682	KL883	719	KR38	756	L195	793	LG264
	683	KL903	720	KS20	757	L196	794	LG280
	684	KM14	721	KS40	758	L198	795	LG322
25	685	KM157	722	KS41	759	L2	796	LG64
	686	KM225	723	KS47	760	L200	797	LH156
	687	KM288	724	KS71	761	L202	798	LH376
	688	KM309	725	KT25	762	L209	799	LI210
	689	KN1010	726	KT61	763	L238	800	LI302
30	690	KN1146	727	KU84	764	L250	801	LI307
	691	KN157	728	KU95	765	L256	802	LI392
	692	KN159	729	KV10	766	L3	803	LI506
	693	KN436	730	KV16	767	L5	804	LI515
	694	KN439	731	KV29	768	L64	805	LI674
35	695	KN446	732	KW27	769	L69	806	LI684
	696	KN487	733	KW28	770	LC85	807	LI705
	697	KN498	734	KW44	771	LE10	808	LI767

	809	LJ103	846	LR190	883	LS44	920	LU556
	810	LJ119	847	LR204	884	LS45	921	LU558
	811	LJ12	848	LR220	885	LS50	922	LU580
	812	LJ145	849	LR260	886	LS62	923	LU697
5	813	LJ290	850	LR286	887	LS87	924	LU724
	814	LK17	851	LR315	888	LS9	925	LU789
	815	LK57	852	LR32	889	LS98	926	LU810
	816	LL22	853	LR323	890	LT195	927	LU811
	817	LL89	854	LR337	891	LT255	928	LU820
10	818	LN86	855	LR347	892	LT28	929	LU864
	819	LO220	856	LR360	893	LT285	930	LV118
	820	LO292	857	LR381	894	LT289	931	LV157
	821	LO311	858	LR398	895	LT321	932	LV2
	822	LO32	859	LR406	896	LT369	933	LV209
15	823	LP118	860	LR432	897	LT380	934	LV253
	824	LP197	861	LR447	898	LT384	935	LV292
	825	LP274	862	LR561	899	LT386	936	LV296
	826	LP391	863	LR568	900	LT390	937	LV310
	827	LP436	864	LR57	901	LT403	938	LV317
20	828	LP474	865	LR596	902	LT410	939	LV331
	829	LP529	866	LR607	903	LT48	940	LV371
	830	LP547	867	LR612	904	LT595	941	LV376
	831	LP562	868	LR618	905	LT620	942	LV388
	832	LP572	869	LR636	906	LT634	943	LV435
25	833	LP574	870	LR76	907	LT646	944	LV449
	834	LP584	871	LR79	908	LT686	945	LV462
	835	LP585	872	LR95	909	LT96	946	LV505
	836	LP615	873	LS101	910	LU127	947	LV506
	837	LP631	874	LS120	911	LU164	948	LV528
30	838	LP667	875	LS121	912	LU211	949	LV555
	839	LP672	876	LS123	913	LU309	950	LV621
	840	LP675	877	LS139	914	LU38	951	LV85
	841	LP97	878	LS150	915	LU380	952	LV98
	842	LR110	879	LS16	916	LU399	953	LW1
35	843	LR128	880	LS18	917	LU460	954	LW104
	844	LR141	881	LS203	918	LU480	955	LW113
	845	LR170	882	LS36	919	LU524	956	LW123

	957	LW126	994	M66	1031	MC361	1068	ME252
	958	LW145	995	M8	1032	MC367	1069	ME253
	959	LW150	996	M83	1033	MC376	1070	ME258
	960	LW59	997	M93	1034	MC413	1071	ME387
5	961	LW63	998	M95	1035	MC69	1072	ME44
	962	LW97	999	MA101	1036	MC83	1073	ME456
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	964	LX107	1001	MA130	1038	MC96	1075	ME505
	965	LX111	1002	MA158	1039	MD112	1076	ME514
10	966	LX115	1003	MA172	1040	MD124	1077	ME519
	967	LX121	1004	MA174	1041	MD167	1078	ME569
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	969	LX135	1006	MA270	1043	MD170	1080	ME614
	970	LX138	1007	MB261	1044	MD171	1081	ME691
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	972	LX174	1009	MB365	1046	MD183	1083	ME721
	973	LX176	1010	MB85	1047	MD300	1084	ME744
	974	LX18	1011	MB88	1048	MD303	1085	ME756
	975	LX226	1012	MC11	1049	MD312	1086	ME771
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	979	LX344	1016	MC155	1053	MD467	1090	MF135
	980	LX358	1017	MC180	1054	MD500	1091	MG101
25	981	LX59	1018	MC199	1055	MD521	1092	MG105
	982	LX73	1019	MC252	1056	MD536	1093	MG141
	983	LZ143	1020	MC286	1057	MD54	1094	MG168
	984	LZ290	1021	MC293	1058	MD544	1095	MG184
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	1106	MH218	1143	MI381	1180	MK242	1217	ML90
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	1115	MH429	1152	MI561	1189	MK377	1226	MM197
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	1127	MI102	1164	MJ403	1201	ML246	1238	MM543
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	1130	MI213	1167	MJ462	1204	ML285	1241	MM567
	1131	MI226	1168	MJ476	1205	ML40	1242	MM658
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	1133	MI276	1170	MJ80	1207	ML468	1244	MM72
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	1135	MI318	1172	MJ99	1209	ML546	1246	MN219
	1136	MI327	1173	MK106	1210	ML550	1247	MN265
	1137	MI330	1174	MK112	1211	ML551	1248	MN275
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	1271	MP36	1308	MY111	1345	N158	1382	NA12
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	1570	NG619	1607	NHAE10	1644	NI219	1681	NL560
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	1572	NG635	1609	NHAE123	1646	NI76	1683	NL567
25	1573	NG67	1610	NHAE149	1647	NI93	1684	NL572
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	1580	NH315	1617	NHAE96	1654	NK27	1691	NL659
	1581	NH328	1618	NHAG1	1655	NK40	1692	NL701
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	1585	NH44	1622	NHAG230	1659	NL139	1696	NM134

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	1719	NM95	1756	NN29	1793	NP137	1830	NP96
	1720	NM99	1757	NN295	1794	NP156	1831	NQ25
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	1724	NN105	1761	NN310	1798	NP176	1835	NQ45
	1725	NN106	1762	NN313	1799	NP180	1836	NQ82
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	1729	NN134	1766	NN322	1803	NP206	1840	NR55
	1730	NN137	1767	NN323	1804	NP210	1841	NR65
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	1845	NS197	1882	NT789	1919	O2	1956	PC442
	1846	NS202	1883	NT829	1920	O238	1957	PD125
	1847	NS236	1884	NT830	1921	O271	1958	PD212
	1848	NS58	1885	NU101	1922	O279	1959	PD233
5	1849	NS65	1886	NU130	1923	O328	1960	PD240
	1850	NS70	1887	NU14	1924	O336	1961	PD278
	1851	NT271	1888	NU177	1925	O394	1962	PD309
	1852	NT301	1889	NU232	1926	O395	1963	PD319
	1853	NT374	1890	NU34	1927	O406	1964	PD444
10	1854	NT382	1891	NU35	1928	O84	1965	PD456
	1855	NT385	1892	NU356	1929	P12	1966	PE113
	1856	NT392	1893	NV120	1930	P2	1967	PE115
	1857	NT393	1894	NV213	1931	P22	1968	PE126
	1858	NT394	1895	NW175	1932	P30	1969	PE128
15	1859	NT396	1896	NW68	1933	P35	1970	PE143
	1860	NT418	1897	NW84	1934	P39	1971	PE159
	1861	NT428	1898	NX135	1935	P405	1972	PE163
	1862	NT429	1899	NX154	1936	P459	1973	PE166
	1863	NT430	1900	NY178	1937	P53	1974	PE172
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	1865	NT441	1902	NZ1	1939	P8	1976	PE186
	1866	NT444	1903	NZ101	1940	P9	1977	PE19
	1867	NT45	1904	NZ149	1941	PA85	1978	PE190
	1868	NT453	1905	NZ187	1942	PB15	1979	PE204
25	1869	NT457	1906	NZ190	1943	PB165	1980	PE205
	1870	NT512	1907	NZ229	1944	PB166	1981	PE213
	1871	NT528	1908	NZ345	1945	PB60	1982	PE223
	1872	NT53	1909	NZ77	1946	PC201	1983	PE227
	1873	NT533	1910	NZ85	1947	PC262	1984	PE23
30	1874	NT678	1911	O117	1948	PC335	1985	PE246
	1875	NT698	1912	O12	1949	PC349	1986	PE247
	1876	NT730	1913	O131	1950	PC379	1987	PE251
	1877	NT732	1914	O14	1951	PC381	1988	PE256
	1878	NT733	1915	O140	1952	PC41	1989	PE261
35	1879	NT742	1916	O177	1953	PC410	1990	PE262
	1880	NT746	1917	O185	1954	PC424	1991	PE272
	1881	NT780	1918	O199	1955	PC425	1992	PE286

	1993	PE287	2030	PE622	2067	PG117	2104	PJ193
	1994	PE293	2031	PE642	2068	PG195	2105	PJ196
	1995	PE299	2032	PE645	2069	PG284	2106	PJ212
	1996	PE301	2033	PE650	2070	PG330	2107	PJ239
5	1997	PE308	2034	PE659	2071	PG371	2108	PJ26
	1998	PE318	2035	PE673	2072	PG394	2109	PJ265
	1999	PE338	2036	PE676	2073	PG397	2110	PJ299
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	2001	PE363	2038	PE678	2075	PH148	2112	PJ314
10	2002	PE383	2039	PE691	2076	PH174	2113	PJ317
	2003	PE399	2040	PE70	2077	PH226	2114	PJ323
	2004	PE400	2041	PE727	2078	PH60	2115	PJ350
	2005	PE403	2042	PE738	2079	PH79	2116	PJ356
	2006	PE416	2043	PE750	2080	PH92	2117	PJ365
15	2007	PE430	2044	PE765	2081	PI13	2118	PJ372
	2008	PE443	2045	PE768	2082	PI191	2119	PJ375
	2009	PE47	2046	PE776	2083	PI198	2120	PJ414
	2010	PE480	2047	PE777	2084	PI231	2121	PJ422
	2011	PE482	2048	PE78	2085	PI25	2122	PJ433
20	2012	PE503	2049	PE789	2086	PI279	2123	PJ439
	2013	PE505	2050	PE80	2087	PI323	2124	PJ46
	2014	PE512	2051	PE806	2088	PI40	2125	PJ463
	2015	PE518	2052	PE807	2089	PI62	2126	PJ471
	2016	PE526	2053	PE808	2090	PJ1	2127	PJ488
25	2017	PE540	2054	PE817	2091	PJ11	2128	PJ495
	2018	PE541	2055	PE834	2092	PJ130	2129	PJ496
	2019	PE546	2056	PE840	2093	PJ132	2130	PJ502
	2020	PE549	2057	PE842	2094	PJ14	2131	PJ518
	2021	PE551	2058	PE843	2095	PJ142	2132	PJ525
30	2022	PE564	2059	PE862	2096	PJ145	2133	PJ53
	2023	PE565	2060	PE91	2097	PJ154	2134	PJ544
	2024	PE567	2061	PF146	2098	PJ157	2135	PJ546
	2025	PE571	2062	PF231	2099	PJ161	2136	PJ78
	2026	PE574	2063	PF291	2100	PJ167	2137	PJ8
35	2027	PE584	2064	PF296	2101	PJ172	2138	PJ95
	2028	PE585	2065	PF3	2102	PJ181	2139	PK100
	2029	PE615	2066	PF375	2103	PJ186	2140	PK103

	2141	PK106	2178	PK558	2215	PL207	2252	PL491
	2142	PK114	2179	PK561	2216	PL208	2253	PL501
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	2146	PK155	2183	PK65	2220	PL268	2257	PL52
	2147	PK175	2184	PK655	2221	PL27	2258	PL554
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15	2155	PK242	2192	PK80	2229	PL354	2266	PL60
	2156	PK259	2193	PK817	2230	PL358	2267	PL603
	2157	PK262	2194	PK819	2231	PL36	2268	PL614
	2158	PK264	2195	PK829	2232	PL360	2269	PL658
	2159	PK266	2196	PK831	2233	PL369	2270	PL664
20	2160	PK267	2197	PK855	2234	PL378	2271	PL67
	2161	PK271	2198	PK857	2235	PL385	2272	PL673
	2162	PK284	2199	PK864	2236	PL386	2273	PL69
	2163	PK317	2200	PK878	2237	PL391	2274	PL701
	2164	PK326	2201	PL104	2238	PL409	2275	PL71
25	2165	PK332	2202	PL105	2239	PL414	2276	PL719
	2166	PK335	2203	PL106	2240	PL42	2277	PL725
	2167	PK359	2204	PL110	2241	PL421	2278	PL730
	2168	PK366	2205	PL111	2242	PL433	2279	PL741
	2169	PK398	2206	PL125	2243	PL434	2280	PL747
30	2170	PK405	2207	PL146	2244	PL44	2281	PL750
	2171	PK430	2208	PL157	2245	PL445	2282	PL751
	2172	PK436	2209	PL159	2246	PL455	2283	PL765
	2173	PK457	2210	PL16	2247	PL457	2284	PL772
	2174	PK473	2211	PL164	2248	PL461	2285	PL773
35	2175	PK474	2212	PL189	2249	PL463	2286	PL776
	2176	PK503	2213	PL19	2250	PL464	2287	PL784
	2177	PK551	2214	PL205	2251	PL486	2288	PL803

	2289	PL830	2326	PM260	2363	PM516	2400	PM783
	2290	PL845	2327	PM275	2364	PM523	2401	PM789
	2291	PL85	2328	PM289	2365	PM524	2402	PM790
	2292	PL87	2329	PM297	2366	PM527	2403	PM801
5	2293	PL89	2330	PM303	2367	PM529	2404	PM803
	2294	PM1	2331	PM305	2368	PM53	2405	PM812
	2295	PM103	2332	PM306	2369	PM537	2406	PM830
	2296	PM105	2333	PM310	2370	PM545	2407	PM840
	2297	PM110	2334	PM314	2371	PM546	2408	PM841
10	2298	PM113	2335	PM323	2372	PM554	2409	PM842
	2299	PM126	2336	PM34	2373	PM562	2410	PM843
	2300	PM129	2337	PM347	2374	PM579	2411	PM849
	2301	PM136	2338	PM362	2375	PM583	2412	PM854
	2302	PM141	2339	PM371	2376	PM596	2413	PM96
15	2303	PM142	2340	PM385	2377	PM6	2414	PO12
	2304	PM144	2341	PM387	2378	PM601	2415	PO30
	2305	PM150	2342	PM39	2379	PM605	2416	PO36
	2306	PM158	2343	PM393	2380	PM623	2417	PO42
	2307	PM161	2344	PM397	2381	PM624	2418	PO72
20	2308	PM170	2345	PM4	2382	PM627	2419	PP1
	2309	PM173	2346	PM40	2383	PM633	2420	PP10
	2310	PM180	2347	PM404	2384	PM672	2421	PP101
	2311	PM182	2348	PM412	2385	PM681	2422	PP110
	2312	PM19	2349	PM413	2386	PM692	2423	PP117
25	2313	PM195	2350	PM415	2387	PM696	2424	PP128
	2314	PM198	2351	PM42	2388	PM697	2425	PP131
	2315	PM200	2352	PM421	2389	PM717	2426	PP133
	2316	PM202	2353	PM430	2390	PM722	2427	PP136
	2317	PM21	2354	PM434	2391	PM738	2428	PP138
30	2318	PM213	2355	PM446	2392	PM741	2429	PP163
	2319	PM217	2356	PM455	2393	PM749	2430	PP165
	2320	PM229	2357	PM46	2394	PM753	2431	PP173
	2321	PM243	2358	PM476	2395	PM758	2432	PP175
	2322	PM245	2359	PM482	2396	PM767	2433	PP194
35	2323	PM248	2360	PM503	2397	PM769	2434	PP210
	2324	PM249	2361	PM51	2398	PM776	2435	PP212
	2325	PM256	2362	PM514	2399	PM782	2436	PP216

	2437	PP219	2474	PP393
	2438	PP224	2475	PP395
	2439	PP226	2476	PP398
	2440	PP227	2477	PP407
5	2441	PP23	2478	PP411
	2442	PP230	2479	PP413
	2443	PP233	2480	PP422
	2444	PP242	2481	PP428
	2445	PP243	2482	PP430
10	2446	PP244	2483	PP451
	2447	PP245	2484	PP454
	2448	PP255	2485	PP457
	2449	PP260	2486	PP46
	2450	PP261	2487	PP469
15	2451	PP267	2488	PP47
	2452	PP276	2489	PP482
	2453	PP292	2490	PP487
	2454	PP297	2491	PP5
	2455	PP299	2492	PP509
20	2456	PP303	2493	PP51
	2457	PP308	2494	PP517
	2458	PP314	2495	PP525
	2459	PP321	2496	PP54
	2460	PP325	2497	PP60
25	2461	PP330	2498	PP7
	2462	PP332	2499	PP71
	2463	PP337	2500	PP80
	2464	PP345		
	2465	PP35		
30	2466	PP356		
	2467	PP367		
	2468	PP379		
	2469	PP386		
	2470	PP387		
35	2471	PP389		
	2472	PP390		
	2473	PP392		

The "Clone ID No." for a particular clone consists of one or two letters followed by a number. The letters designate the tissue source from which the sEST was isolated. Table 3 below lists the various sources which were run through applicants' signal sequence trap. Thus, the tissue source for a particular sEST sequence can be identified
5 in Table 3 by the one and two letter designations used in the relevant "Clone ID No." in Table 2. For example, a clone designated as "AA239" would have been isolated from a human fetal kidney library (i.e., selection "AA") as indicated in Table 3.

As used herein, "polynucleotide" includes single- and double-stranded RNAs, DNAs and RNA:DNA hybrids.

10 As used herein a "secreted" protein is one which, when expressed in a suitable host cell, is transported across or through a membrane, including transport as a result of signal sequences in its amino acid sequence. "Secreted" proteins include without limitation proteins secreted wholly (e.g., soluble proteins) or partially (e.g., receptors) from the cell in which they are expressed. "Secreted" proteins also include without
15 limitation proteins which are transported across the membrane of the endoplasmic reticulum.

Fragments of the proteins of the present invention which are capable of exhibiting biological activity are also encompassed by the present invention. Fragments of the protein may be in linear form or they may be cyclized using known
20 methods, for example, as described in H.U. Saragovi, *et al.*, *Bio/Technology* 10, 773-778 (1992) and in R.S. McDowell, *et al.*, *J. Amer. Chem. Soc.* 114, 9245-9253 (1992), both of which are incorporated herein by reference. Such fragments may be fused to carrier molecules such as immunoglobulins for many purposes, including increasing the valency of protein binding sites. For example, fragments of the protein may be
25 fused through "linker" sequences to the Fc portion of an immunoglobulin. For a bivalent form of the protein, such a fusion could be to the Fc portion of an IgG molecule. Other immunoglobulin isotypes may also be used to generate such fusions. For example, a protein - IgM fusion would generate a decavalent form of the protein of the invention.

30 The present invention also provides both full-length and mature forms of the disclosed proteins. The full-length form of the such proteins is identified in the sequence listing by translation of the nucleotide sequence of each disclosed clone. The mature form(s) of such protein may be obtained by expression of the disclosed full-length polynucleotide (preferably those deposited with ATCC) in a suitable

mammalian cell or other host cell. The sequence(s) of the mature form(s) of the protein may also be determinable from the amino acid sequence of the full-length form.

The present invention also provides genes corresponding to the
5 polynucleotide sequences disclosed herein. "Corresponding genes" are the regions of the genome that are transcribed to produce the mRNAs from which cDNA polynucleotide sequences are derived and may include contiguous regions of the genome necessary for the regulated expression of such genes. Corresponding genes may therefore include but are not limited to coding sequences, 5' and 3' untranslated
10 regions, alternatively spliced exons, introns, promoters, enhancers, and silencer or suppressor elements. The corresponding genes can be isolated in accordance with known methods using the sequence information disclosed herein. Such methods include the preparation of probes or primers from the disclosed sequence information for identification and/or amplification of genes in appropriate genomic libraries or
15 other sources of genomic materials. An "isolated gene" is a gene that has been separated from the adjacent coding sequences, if any, present in the genome of the organism from which the gene was isolated.

The chromosomal location corresponding to the polynucleotide sequences disclosed herein may also be determined, for example by hybridizing appropriately
20 labeled polynucleotides of the present invention to chromosomes *in situ*. It may also be possible to determine the corresponding chromosomal location for a disclosed polynucleotide by identifying significantly similar nucleotide sequences in public databases, such as expressed sequence tags (ESTs), that have already been mapped to particular chromosomal locations. For at least some of the polynucleotide
25 sequences disclosed herein, public database sequences having at least some similarity to the polynucleotide of the present invention have been listed by database accession number. Searches using the GenBank accession numbers of these public database sequences can then be performed at an Internet site provided by the National Center for Biotechnology Information having the address www.ncbi.nlm.nih.gov/UniGene,
30 in order to identify "UniGene clusters" of overlapping sequences. Many of the "UniGene clusters" so identified will already have been mapped to particular chromosomal sites.

Organisms that have enhanced, reduced, or modified expression of the gene(s) corresponding to the polynucleotide sequences disclosed herein are provided.

The desired change in gene expression can be achieved through the use of antisense polynucleotides or ribozymes that bind and/or cleave the mRNA transcribed from the gene (Albert and Morris, 1994, *Trends Pharmacol. Sci.* 15(7): 250-254; Lavarosky *et al.*, 1997, *Biochem. Mol. Med.* 62(1): 11-22; and Hampel, 1998, *Prog. Nucleic Acid Res. Mol. Biol.* 58: 1-39; all of which are incorporated by reference herein). Transgenic animals that have multiple copies of the gene(s) corresponding to the polynucleotide sequences disclosed herein, preferably produced by transformation of cells with genetic constructs that are stably maintained within the transformed cells and their progeny, are provided. Transgenic animals that have modified genetic control regions that increase or reduce gene expression levels, or that change temporal or spatial patterns of gene expression, are also provided (see European Patent No. 0 649 464 B1, incorporated by reference herein). In addition, organisms are provided in which the gene(s) corresponding to the polynucleotide sequences disclosed herein have been partially or completely inactivated, through insertion of extraneous sequences into the corresponding gene(s) or through deletion of all or part of the corresponding gene(s). Partial or complete gene inactivation can be accomplished through insertion, preferably followed by imprecise excision, of transposable elements (Plasterk, 1992, *Bioessays* 14(9): 629-633; Zwaal *et al.*, 1993, *Proc. Natl. Acad. Sci. USA* 90(16): 7431-7435; Clark *et al.*, 1994, *Proc. Natl. Acad. Sci. USA* 91(2): 719-722; all of which are incorporated by reference herein), or through homologous recombination, preferably detected by positive/negative genetic selection strategies (Mansour *et al.*, 1988, *Nature* 336: 348-352; U.S. Patent Nos. 5,464,764; 5,487,992; 5,627,059; 5,631,153; 5,614,396; 5,616,491; and 5,679,523; all of which are incorporated by reference herein). These organisms with altered gene expression are preferably eukaryotes and more preferably are mammals. Such organisms are useful for the development of non-human models for the study of disorders involving the corresponding gene(s), and for the development of assay systems for the identification of molecules that interact with the protein product(s) of the corresponding gene(s).

Where the protein of the present invention is membrane-bound (e.g., is a receptor), the present invention also provides for soluble forms of such protein. In such forms part or all of the intracellular and transmembrane domains of the protein are deleted such that the protein is fully secreted from the cell in which it is expressed. The intracellular and transmembrane domains of proteins of the invention

can be identified in accordance with known techniques for determination of such domains from sequence information.

Proteins and protein fragments of the present invention include proteins with amino acid sequence lengths that are at least 25% (more preferably at least 50%, and
5 most preferably at least 75%) of the length of a disclosed protein and have at least 60% sequence identity (more preferably, at least 75% identity; most preferably at least 90% or 95% identity) with that disclosed protein, where sequence identity is determined by comparing the amino acid sequences of the proteins when aligned so as to maximize overlap and identity while minimizing sequence gaps. Also included
10 in the present invention are proteins and protein fragments that contain a segment preferably comprising 8 or more (more preferably 20 or more, most preferably 30 or more) contiguous amino acids that shares at least 75% sequence identity (more preferably, at least 85% identity; most preferably at least 95% identity) with any such segment of any of the disclosed proteins.

15 In particular, sequence identity may be determined using WU-BLAST (Washington University BLAST) version 2.0 software, which builds upon WU-BLAST version 1.4, which in turn is based on the public domain NCBI-BLAST version 1.4 (Altschul and Gish, 1996, Local alignment statistics, Doolittle *ed.*, *Methods in Enzymology* 266: 460-480; Altschul *et al.*, 1990, Basic local alignment
20 search tool, *Journal of Molecular Biology* 215: 403-410; Gish and States, 1993, Identification of protein coding regions by database similarity search, *Nature Genetics* 3: 266-272; Karlin and Altschul, 1993, Applications and statistics for multiple high-scoring segments in molecular sequences, *Proc. Natl. Acad. Sci. USA* 90: 5873-5877; all of which are incorporated by reference herein). WU-BLAST version
25 2.0 executable programs for several UNIX platforms can be downloaded from the Internet file-transfer protocol (FTP) site <ftp://blast.wustl.edu/blast/executables>. The complete suite of search programs (BLASTP, BLASTN, BLASTX, TBLASTN, and TBLASTX) is provided at that site, in addition to several support programs. WU-BLAST 2.0 is copyrighted and may not be sold or redistributed in any form or
30 manner without the express written consent of the author; but the posted executables may otherwise be freely used for commercial, nonprofit, or academic purposes. In all search programs in the suite -- BLASTP, BLASTN, BLASTX, TBLASTN and

TBLASTX -- the gapped alignment routines are integral to the database search itself, and thus yield much better sensitivity and selectivity while producing the more easily interpreted output. Gapping can optionally be turned off in all of these programs, if desired. The default penalty (Q) for a gap of length one is Q=9 for proteins and BLASTP, and Q=10 for BLASTN, but may be changed to any integer value including zero, one through eight, nine, ten, eleven, twelve through twenty, twenty-one through fifty, fifty-one through one hundred, etc. The default per-residue penalty for extending a gap (R) is R=2 for proteins and BLASTP, and R=10 for BLASTN, but may be changed to any integer value including zero, one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve through twenty, twenty-one through fifty, fifty-one through one hundred, etc. Any combination of values for Q and R can be used in order to align sequences so as to maximize overlap and identity while minimizing sequence gaps. The default amino acid comparison matrix is BLOSUM62, but other amino acid comparison matrices such as PAM can be utilized.

Species homologues of the disclosed polynucleotides and proteins are also provided by the present invention. As used herein, a "species homologue" is a protein or polynucleotide with a different species of origin from that of a given protein or polynucleotide, but with significant sequence similarity to the given protein or polynucleotide. Preferably, polynucleotide species homologues have at least 60% sequence identity (more preferably, at least 75% identity; most preferably at least 90% identity) with the given polynucleotide, and protein species homologues have at least 30% sequence identity (more preferably, at least 45% identity; most preferably at least 60% identity) with the given protein, where sequence identity is determined by comparing the nucleotide sequences of the polynucleotides or the amino acid sequences of the proteins when aligned so as to maximize overlap and identity while minimizing sequence gaps. Species homologues may be isolated and identified by making suitable probes or primers from the sequences provided herein and screening a suitable nucleic acid source from the desired species. Preferably, species homologues are those isolated from mammalian species. Most preferably, species homologues are those isolated from certain mammalian species such as, for example, *Pan troglodytes*, *Gorilla gorilla*, *Pongo pygmaeus*, *Hylobates concolor*, *Macaca mulatta*, *Papio papio*, *Papio hamadryas*, *Cercopithecus aethiops*, *Cebus capucinus*, *Aotus trivirgatus*,

Sanguinus oedipus, *Microcebus murinus*, *Mus musculus*, *Rattus norvegicus*, *Cricetulus griseus*, *Felis catus*, *Mustela vison*, *Canis familiaris*, *Oryctolagus cuniculus*, *Bos taurus*, *Ovis aries*, *Sus scrofa*, and *Equus caballus*, for which genetic maps have been created allowing the identification of syntenic relationships between the genomic organization of genes in one species and the genomic organization of the related genes in another species (O'Brien and Seuánez, 1988, *Ann. Rev. Genet.* 22: 323-351; O'Brien *et al.*, 1993, *Nature Genetics* 3:103-112; Johansson *et al.*, 1995, *Genomics* 25: 682-690; Lyons *et al.*, 1997, *Nature Genetics* 15: 47-56; O'Brien *et al.*, 1997, *Trends in Genetics* 13(10): 393-399; Carver and Stubbs, 1997, *Genome Research* 7:1123-1137; all of which are incorporated by reference herein).

The invention also encompasses allelic variants of the disclosed polynucleotides or proteins; that is, naturally-occurring alternative forms of the isolated polynucleotides which also encode proteins which are identical or have significantly similar sequences to those encoded by the disclosed polynucleotides. Preferably, allelic variants have at least 60% sequence identity (more preferably, at least 75% identity; most preferably at least 90% identity) with the given polynucleotide, where sequence identity is determined by comparing the nucleotide sequences of the polynucleotides when aligned so as to maximize overlap and identity while minimizing sequence gaps. Allelic variants may be isolated and identified by making suitable probes or primers from the sequences provided herein and screening a suitable nucleic acid source from individuals of the appropriate species.

The invention also includes polynucleotides with sequences complementary to those of the polynucleotides disclosed herein.

The present invention also includes polynucleotides that hybridize under reduced stringency conditions, more preferably stringent conditions, and most preferably highly stringent conditions, to polynucleotides described herein. Examples of stringency conditions are shown in the table below: highly stringent conditions are those that are at least as stringent as, for example, conditions A-F; stringent conditions are at least as stringent as, for example, conditions G-L; and reduced stringency conditions are at least as stringent as, for example, conditions M-R.

Stringency Condition	Polynucleotide Hybrid	Hybrid Length (bp) [†]	Hybridization Temperature and Buffer [‡]	Wash Temperature and Buffer [‡]
5	A	≥ 50	65°C; 1xSSC -or- 42°C; 1xSSC, 50% formamide	65°C; 0.3xSSC
	B	<50	T _B *; 1xSSC	T _B *; 1xSSC
	C	≥ 50	67°C; 1xSSC -or- 45°C; 1xSSC, 50% formamide	67°C; 0.3xSSC
	D	<50	T _D *; 1xSSC	T _D *; 1xSSC
	E	≥ 50	70°C; 1xSSC -or- 50°C; 1xSSC, 50% formamide	70°C; 0.3xSSC
	F	<50	T _F *; 1xSSC	T _F *; 1xSSC
10	G	≥ 50	65°C; 4xSSC -or- 42°C; 4xSSC, 50% formamide	65°C; 1xSSC
	H	<50	T _H *; 4xSSC	T _H *; 4xSSC
	I	≥ 50	67°C; 4xSSC -or- 45°C; 4xSSC, 50% formamide	67°C; 1xSSC
	J	<50	T _J *; 4xSSC	T _J *; 4xSSC
	K	≥ 50	70°C; 4xSSC -or- 50°C; 4xSSC, 50% formamide	67°C; 1xSSC
	L	<50	T _L *; 2xSSC	T _L *; 2xSSC
15	M	≥ 50	50°C; 4xSSC -or- 40°C; 6xSSC, 50% formamide	50°C; 2xSSC
	N	<50	T _N *; 6xSSC	T _N *; 6xSSC
	O	≥ 50	55°C; 4xSSC -or- 42°C; 6xSSC, 50% formamide	55°C; 2xSSC
	P	<50	T _P *; 6xSSC	T _P *; 6xSSC
	Q	≥ 50	60°C; 4xSSC -or- 45°C; 6xSSC, 50% formamide	60°C; 2xSSC
	R	<50	T _R *; 4xSSC	T _R *; 4xSSC

[†]: The hybrid length is that anticipated for the hybridized region(s) of the hybridizing polynucleotides. When hybridizing a polynucleotide to a target polynucleotide of unknown sequence, the hybrid length is assumed to be that of the hybridizing polynucleotide. When polynucleotides of known sequence are hybridized, the hybrid length can be determined by aligning the sequences of the polynucleotides and identifying the region or regions of optimal sequence complementarity.

[‡]: SSPE (1xSSPE is 0.15M NaCl, 10mM NaH₂PO₄, and 1.25mM EDTA, pH 7.4) can be substituted for SSC (1xSSC is 0.15M NaCl and 15mM sodium citrate) in the hybridization and wash buffers; washes are performed for 15 minutes after hybridization is complete.

*T_B - T_R: The hybridization temperature for hybrids anticipated to be less than 50 base pairs in length should be 5-10°C less than the melting temperature (T_m) of the hybrid, where T_m is determined according to the following equations. For hybrids less than 18 base pairs in length, T_m(°C) = 2(# of A + T bases) + 4(# of G + C bases). For hybrids between 18 and 49 base

pairs in length, $T_m(^{\circ}\text{C}) = 81.5 + 16.6(\log_{10}[\text{Na}^+]) + 0.41(\%G+C) - (600/N)$, where N is the number of bases in the hybrid, and $[\text{Na}^+]$ is the concentration of sodium ions in the hybridization buffer ($[\text{Na}^+]$ for 1xSSC = 0.165 M).

5 Additional examples of stringency conditions for polynucleotide hybridization are provided in Sambrook, J., E.F. Fritsch, and T. Maniatis, 1989, *Molecular Cloning: A Laboratory Manual*, Cold Spring Harbor Laboratory Press, Cold Spring Harbor, NY, chapters 9 and 11, and *Current Protocols in Molecular Biology*, 1995, F.M. Ausubel et al., eds., John Wiley & Sons, Inc., sections 2.10 and 6.3-6.4,
10 incorporated herein by reference.

Preferably, each such hybridizing polynucleotide has a length that is at least 25%(more preferably at least 50%, and most preferably at least 75%) of the length of the polynucleotide of the present invention to which it hybridizes, and has at least 60% sequence identity (more preferably, at least 75% identity; most preferably at least
15 90% or 95% identity) with the polynucleotide of the present invention to which it hybridizes, where sequence identity is determined by comparing the sequences of the hybridizing polynucleotides when aligned so as to maximize overlap and identity while minimizing sequence gaps.

The isolated polynucleotide of the invention may contain sequences at its 5' and/or 3' end that are derived from linker, polylinker, or multiple cloning site sequences commonly found in vectors such as the pMT2 or pED expression vectors (see below). For example, sequences such as SEQ ID NO:2501, SEQ ID NO:2502, or SEQ ID NO:2503 may be found at the 5' end of an isolated polynucleotide of the invention, or the complement of any of these sequences may be found at its 3' end.
20 Similarly, sequences such as SEQ ID NO:2504, SEQ ID NO:2505, or SEQ ID NO:2506 may be found at the 3' end of an isolated polynucleotide of the invention, or the complement of any of these sequences may be found at its 5' end. In addition, variants of these linker sequences may be present in isolated polynucleotides of the invention, which linker variants vary from SEQ ID NO:2501 through SEQ ID NO:2506
25 by the alteration, insertion, or deletion of one or more nucleotides. Therefore, a preferred embodiment of the invention comprises the nucleotide sequence of any of the isolated polynucleotides disclosed herein, beginning at nucleotide 25 and ending at nucleotide (N-25) of the SEQ ID NO for that polynucleotide, where N represents the total number of nucleotides in the sequence. As a specific example, a preferred
30 embodiment of the invention comprises the nucleotide sequence of SEQ ID NO:1
35

from nucleotide 25 to nucleotide 291, where the total number of nucleotides (N) in SEQ ID NO:1 is 316, and N-25 equals 291. More preferably, a polynucleotide of the invention comprises the nucleotide sequence of any of the isolated polynucleotides disclosed herein, beginning at nucleotide 30 and ending at nucleotide (N-30) of the
5 SEQ ID NO for that polynucleotide. Most preferably, a polynucleotide of the invention comprises the nucleotide sequence of any of the isolated polynucleotides disclosed herein, beginning at nucleotide 35 and ending at nucleotide (N-35) of the SEQ ID NO for that polynucleotide.

The isolated polynucleotide of the invention may be operably linked to an
10 expression control sequence such as the pMT2 or pED expression vectors disclosed in Kaufman *et al.*, Nucleic Acids Res. 19, 4485-4490 (1991), in order to produce the protein recombinantly. Many suitable expression control sequences are known in the art. General methods of expressing recombinant proteins are also known and are exemplified in R. Kaufman, Methods in Enzymology 185, 537-566 (1990). As defined
15 herein "operably linked" means that the isolated polynucleotide of the invention and an expression control sequence are situated within a vector or cell in such a way that the protein is expressed by a host cell which has been transformed (transfected) with the ligated polynucleotide/expression control sequence.

A number of types of cells may act as suitable host cells for expression of the
20 protein. Mammalian host cells include, for example, monkey COS cells, Chinese Hamster Ovary (CHO) cells, human kidney 293 cells, human epidermal A431 cells, human Colo205 cells, 3T3 cells, CV-1 cells, other transformed primate cell lines, normal diploid cells, cell strains derived from *in vitro* culture of primary tissue, primary explants, HeLa cells, mouse L cells, BHK, HL-60, U937, HaK or Jurkat cells.

Alternatively, it may be possible to produce the protein in lower eukaryotes
25 such as yeast or in prokaryotes such as bacteria. Potentially suitable yeast strains include *Saccharomyces cerevisiae*, *Schizosaccharomyces pombe*, *Kluyveromyces* strains, *Candida*, or any yeast strain capable of expressing heterologous proteins. Potentially suitable bacterial strains include *Escherichia coli*, *Bacillus subtilis*, *Salmonella typhimurium*, or any bacterial strain capable of expressing heterologous proteins. If
30 the protein is made in yeast or bacteria, it may be necessary to modify the protein produced therein, for example by phosphorylation or glycosylation of the appropriate sites, in order to obtain the functional protein. Such covalent attachments may be accomplished using known chemical or enzymatic methods.

The protein may also be produced by operably linking the isolated polynucleotide of the invention to suitable control sequences in one or more insect expression vectors, and employing an insect expression system. Materials and methods for baculovirus/insect cell expression systems are commercially available
5 in kit form from, *e.g.*, Invitrogen, San Diego, California, U.S.A. (the MaxBac® kit), and such methods are well known in the art, as described in Summers and Smith, Texas Agricultural Experiment Station Bulletin No. 1555 (1987), incorporated herein by reference. As used herein, an insect cell capable of expressing a polynucleotide of the present invention is "transformed."

10 The protein of the invention may be prepared by culturing transformed host cells under culture conditions suitable to express the recombinant protein. The resulting expressed protein may then be purified from such culture (*i.e.*, from culture medium or cell extracts) using known purification processes, such as gel filtration and ion exchange chromatography. The purification of the protein may also include an
15 affinity column containing agents which will bind to the protein; one or more column steps over such affinity resins as concanavalin A-agarose, heparin-toyopearl® or Cibacrom blue 3GA Sepharose®; one or more steps involving hydrophobic interaction chromatography using such resins as phenyl ether, butyl ether, or propyl ether; or immunoaffinity chromatography.

20 Alternatively, the protein of the invention may also be expressed in a form which will facilitate purification. For example, it may be expressed as a fusion protein, such as those of maltose binding protein (MBP), glutathione-S-transferase (GST) or thioredoxin (TRX). Kits for expression and purification of such fusion proteins are commercially available from New England BioLabs (Beverly, MA),
25 Pharmacia (Piscataway, NJ) and Invitrogen Corporation (Carlsbad, CA), respectively. The protein can also be tagged with an epitope and subsequently purified by using a specific antibody directed to such epitope. One such epitope ("Flag") is commercially available from the Eastman Kodak Company (New Haven, CT).

Finally, one or more reverse-phase high performance liquid chromatography
30 (RP-HPLC) steps employing hydrophobic RP-HPLC media, *e.g.*, silica gel having pendant methyl or other aliphatic groups, can be employed to further purify the protein. Some or all of the foregoing purification steps, in various combinations, can also be employed to provide a substantially homogeneous isolated recombinant

protein. The protein thus purified is substantially free of other mammalian proteins and is defined in accordance with the present invention as an "isolated protein."

The protein of the invention may also be expressed as a product of transgenic animals, e.g., as a component of the milk of transgenic cows, goats, pigs, or sheep
5 which are characterized by somatic or germ cells containing a nucleotide sequence encoding the protein.

The protein may also be produced by known conventional chemical synthesis. Methods for constructing the proteins of the present invention by synthetic means are known to those skilled in the art. The synthetically-constructed protein sequences,
10 by virtue of sharing primary, secondary or tertiary structural and/or conformational characteristics with proteins may possess biological properties in common therewith, including protein activity. Thus, they may be employed as biologically active or immunological substitutes for natural, purified proteins in screening of therapeutic compounds and in immunological processes for the development of antibodies.

15 The proteins provided herein also include proteins characterized by amino acid sequences similar to those of purified proteins but into which modification are naturally provided or deliberately engineered. For example, modifications in the peptide or DNA sequences can be made by those skilled in the art using known techniques. Modifications of interest in the protein sequences may include the
20 alteration, substitution, replacement, insertion or deletion of a selected amino acid residue in the coding sequence. For example, one or more of the cysteine residues may be deleted or replaced with another amino acid to alter the conformation of the molecule. Techniques for such alteration, substitution, replacement, insertion or deletion are well known to those skilled in the art (see, e.g., U.S. Patent No.
25 4,518,584). Preferably, such alteration, substitution, replacement, insertion or deletion retains the desired activity of the protein.

Other fragments and derivatives of the sequences of proteins which would be expected to retain protein activity in whole or in part and may thus be useful for screening or other immunological methodologies may also be easily made by those
30 skilled in the art given the disclosures herein. Such modifications are believed to be encompassed by the present invention.

USES AND BIOLOGICAL ACTIVITY

The polynucleotides and proteins of the present invention are expected to exhibit one or more of the uses or biological activities (including those associated with assays cited herein) identified below. Uses or activities described for proteins of the present invention may be provided by administration or use of such proteins or by administration or use of polynucleotides encoding such proteins (such as, for example, in gene therapies or vectors suitable for introduction of DNA).

Research Uses and Utilities

The polynucleotides provided by the present invention can be used by the research community for various purposes. The primary use of polynucleotides of the invention which are sESTs is as probes for the identification and isolation of full-length cDNAs and genomic DNA molecules which correspond (i.e., is a longer polynucleotide sequence of which substantially the entire sEST is a fragment in the case of a full-length cDNA, or which encodes the sEST in the case of a genomic DNA molecule) to such sESTs. Techniques for use of such sequences as probes for larger cDNAs or genomic molecules are well known in the art.

The polynucleotides can also be used to express recombinant protein for analysis, characterization or therapeutic use; as markers for tissues in which the corresponding protein is preferentially expressed (either constitutively or at a particular stage of tissue differentiation or development or in disease states); as molecular weight markers on Southern gels; as chromosome markers or tags (when labeled) to identify chromosomes or to map related gene positions; to compare with endogenous DNA sequences in patients to identify potential genetic disorders; as probes to hybridize and thus discover novel, related DNA sequences; as a source of information to derive PCR primers for genetic fingerprinting; as a probe to "subtract-out" known sequences in the process of discovering other novel polynucleotides; for selecting and making oligomers for attachment to a "gene chip" or other support, including for examination of expression patterns; to raise anti-protein antibodies using DNA immunization techniques; and as an antigen to raise anti-DNA antibodies or elicit another immune response. Where the polynucleotide encodes a protein which binds or potentially binds to another protein (such as, for example, in a receptor-ligand interaction), the polynucleotide can also be used in interaction trap assays (such as, for example, that described in Gyuris et al., Cell 75:791-803 (1993)) to

identify polynucleotides encoding the other protein with which binding occurs or to identify inhibitors of the binding interaction.

The proteins provided by the present invention can similarly be used in assay to determine biological activity, including in a panel of multiple proteins for high-throughput screening; to raise antibodies or to elicit another immune response; as a reagent (including the labeled reagent) in assays designed to quantitatively determine levels of the protein (or its receptor) in biological fluids; as markers for tissues in which the corresponding protein is preferentially expressed (either constitutively or at a particular stage of tissue differentiation or development or in a disease state); and, of course, to isolate correlative receptors or ligands. Where the protein binds or potentially binds to another protein (such as, for example, in a receptor-ligand interaction), the protein can be used to identify the other protein with which binding occurs or to identify inhibitors of the binding interaction. Proteins involved in these binding interactions can also be used to screen for peptide or small molecule inhibitors or agonists of the binding interaction.

Any or all of these research utilities are capable of being developed into reagent grade or kit format for commercialization as research products.

Methods for performing the uses listed above are well known to those skilled in the art. References disclosing such methods include without limitation "Molecular Cloning: A Laboratory Manual", 2d ed., Cold Spring Harbor Laboratory Press, Sambrook, J., E.F. Fritsch and T. Maniatis eds., 1989, and "Methods in Enzymology: Guide to Molecular Cloning Techniques", Academic Press, Berger, S.L. and A.R. Kimmel eds., 1987.

Nutritional Uses

Polynucleotides and proteins of the present invention can also be used as nutritional sources or supplements. Such uses include without limitation use as a protein or amino acid supplement, use as a carbon source, use as a nitrogen source and use as a source of carbohydrate. In such cases the protein or polynucleotide of the invention can be added to the feed of a particular organism or can be administered as a separate solid or liquid preparation, such as in the form of powder, pills, solutions, suspensions or capsules. In the case of microorganisms, the protein or polynucleotide of the invention can be added to the medium in or on which the microorganism is cultured.

Cytokine and Cell Proliferation/Differentiation Activity

A protein of the present invention may exhibit cytokine, cell proliferation (either inducing or inhibiting) or cell differentiation (either inducing or inhibiting) activity or may induce production of other cytokines in certain cell populations.

5 Many protein factors discovered to date, including all known cytokines, have exhibited activity in one or more factor dependent cell proliferation assays, and hence the assays serve as a convenient confirmation of cytokine activity. The activity of a protein of the present invention is evidenced by any one of a number of routine factor dependent cell proliferation assays for cell lines including, without limitation, 32D,
10 DA2, DA1G, T10, B9, B9/11, BaF3, MC9/G, M+ (preB M+), 2E8, RB5, DA1, 123, T1165, HT2, CTLL2, TF-1, Mo7e and CMK.

The activity of a protein of the invention may, among other means, be measured by the following methods:

Assays for T-cell or thymocyte proliferation include without limitation those
15 described in: *Current Protocols in Immunology*, Ed by J. E. Coligan, A.M. Kruisbeek, D.H. Margulies, E.M. Shevach, W Strober, Pub. Greene Publishing Associates and Wiley-Interscience (Chapter 3, *In Vitro* assays for Mouse Lymphocyte Function 3.1-3.19; Chapter 7, *Immunologic studies in Humans*); Takai et al., *J. Immunol.* 137:3494-3500, 1986; Bertagnolli et al., *J. Immunol.* 145:1706-1712, 1990; Bertagnolli
20 et al., *Cellular Immunology* 133:327-341, 1991; Bertagnolli, et al., *J. Immunol.* 149:3778-3783, 1992; Bowman et al., *J. Immunol.* 152: 1756-1761, 1994.

Assays for cytokine production and/or proliferation of spleen cells, lymph node cells or thymocytes include, without limitation, those described in: *Polyclonal T cell stimulation*, Kruisbeek, A.M. and Shevach, E.M. In *Current Protocols in Immunology*. J.E.e.a. Coligan eds. Vol 1 pp. 3.12.1-3.12.14, John Wiley and Sons,
25 Toronto. 1994; and *Measurement of mouse and human Interferon γ* , Schreiber, R.D. In *Current Protocols in Immunology*. J.E.e.a. Coligan eds. Vol 1 pp. 6.8.1-6.8.8, John Wiley and Sons, Toronto. 1994.

Assays for proliferation and differentiation of hematopoietic and
30 lymphopoietic cells include, without limitation, those described in: *Measurement of Human and Murine Interleukin 2 and Interleukin 4*, Bottomly, K., Davis, L.S. and Lipsky, P.E. In *Current Protocols in Immunology*. J.E.e.a. Coligan eds. Vol 1 pp. 6.3.1-6.3.12, John Wiley and Sons, Toronto. 1991; deVries et al., *J. Exp. Med.* 173:1205-1211, 1991; Moreau et al., *Nature* 336:690-692, 1988; Greenberger et al., *Proc.*

- Natl. Acad. Sci. U.S.A. 80:2931-2938, 1983; Measurement of mouse and human interleukin 6 - Nordan, R. In *Current Protocols in Immunology*. J.E.e.a. Coligan eds. Vol 1 pp. 6.6.1-6.6.5, John Wiley and Sons, Toronto. 1991; Smith et al., Proc. Natl. Acad. Sci. U.S.A. 83:1857-1861, 1986; Measurement of human Interleukin 11 - Bennett, F.,
- 5 Giannotti, J., Clark, S.C. and Turner, K. J. In *Current Protocols in Immunology*. J.E.e.a. Coligan eds. Vol 1 pp. 6.15.1 John Wiley and Sons, Toronto. 1991; Measurement of mouse and human Interleukin 9 - Ciarletta, A., Giannotti, J., Clark, S.C. and Turner, K.J. In *Current Protocols in Immunology*. J.E.e.a. Coligan eds. Vol 1 pp. 6.13.1, John Wiley and Sons, Toronto. 1991.
- 10 Assays for T-cell clone responses to antigens (which will identify, among others, proteins that affect APC-T cell interactions as well as direct T-cell effects by measuring proliferation and cytokine production) include, without limitation, those described in: *Current Protocols in Immunology*, Ed by J. E. Coligan, A.M. Kruisbeek, D.H. Margulies, E.M. Shevach, W Strober, Pub. Greene Publishing Associates and
- 15 Wiley-Interscience (Chapter 3, In Vitro assays for Mouse Lymphocyte Function; Chapter 6, Cytokines and their cellular receptors; Chapter 7, Immunologic studies in Humans); Weinberger et al., Proc. Natl. Acad. Sci. USA 77:6091-6095, 1980; Weinberger et al., Eur. J. Immun. 11:405-411, 1981; Takai et al., J. Immunol. 137:3494-3500, 1986; Takai et al., J. Immunol. 140:508-512, 1988.

20

Immune Stimulating or Suppressing Activity

- A protein of the present invention may also exhibit immune stimulating or immune suppressing activity, including without limitation the activities for which assays are described herein. A protein may be useful in the treatment of various
- 25 immune deficiencies and disorders (including severe combined immunodeficiency (SCID)), e.g., in regulating (up or down) growth and proliferation of T and/or B lymphocytes, as well as effecting the cytolytic activity of NK cells and other cell populations. These immune deficiencies may be genetic or be caused by viral (e.g., HIV) as well as bacterial or fungal infections, or may result from autoimmune
- 30 disorders. More specifically, infectious diseases caused by viral, bacterial, fungal or other infection may be treatable using a protein of the present invention, including infections by HIV, hepatitis viruses, herpesviruses, mycobacteria, *Leishmania* spp., malaria spp. and various fungal infections such as candidiasis. Of course, in this

regard, a protein of the present invention may also be useful where a boost to the immune system generally may be desirable, *i.e.*, in the treatment of cancer.

Autoimmune disorders which may be treated using a protein of the present invention include, for example, connective tissue disease, multiple sclerosis, systemic
5 lupus erythematosus, rheumatoid arthritis, autoimmune pulmonary inflammation, Guillain-Barre syndrome, autoimmune thyroiditis, insulin dependent diabetes mellitis, myasthenia gravis, graft-versus-host disease and autoimmune inflammatory eye disease. Such a protein of the present invention may also to be useful in the treatment of allergic reactions and conditions, such as asthma (particularly allergic
10 asthma) or other respiratory problems. Other conditions, in which immune suppression is desired (including, for example, organ transplantation), may also be treatable using a protein of the present invention.

Using the proteins of the invention it may also be possible to immune responses, in a number of ways. Down regulation may be in the form of inhibiting
15 or blocking an immune response already in progress or may involve preventing the induction of an immune response. The functions of activated T cells may be inhibited by suppressing T cell responses or by inducing specific tolerance in T cells, or both. Immunosuppression of T cell responses is generally an active, non-antigen-specific, process which requires continuous exposure of the T cells to the suppressive agent.
20 Tolerance, which involves inducing non-responsiveness or anergy in T cells, is distinguishable from immunosuppression in that it is generally antigen-specific and persists after exposure to the tolerizing agent has ceased. Operationally, tolerance can be demonstrated by the lack of a T cell response upon reexposure to specific antigen in the absence of the tolerizing agent.

25 Down regulating or preventing one or more antigen functions (including without limitation B lymphocyte antigen functions (such as , for example, B7)), *e.g.*, preventing high level lymphokine synthesis by activated T cells, will be useful in situations of tissue, skin and organ transplantation and in graft-versus-host disease (GVHD). For example, blockage of T cell function should result in reduced tissue
30 destruction in tissue transplantation. Typically, in tissue transplants, rejection of the transplant is initiated through its recognition as foreign by T cells, followed by an immune reaction that destroys the transplant. The administration of a molecule which inhibits or blocks interaction of a B7 lymphocyte antigen with its natural ligand(s) on immune cells (such as a soluble, monomeric form of a peptide having

B7-2 activity alone or in conjunction with a monomeric form of a peptide having an activity of another B lymphocyte antigen (e.g., B7-1, B7-3) or blocking antibody), prior to transplantation can lead to the binding of the molecule to the natural ligand(s) on the immune cells without transmitting the corresponding costimulatory signal.

- 5 Blocking B lymphocyte antigen function in this matter prevents cytokine synthesis by immune cells, such as T cells, and thus acts as an immunosuppressant. Moreover, the lack of costimulation may also be sufficient to anergize the T cells, thereby inducing tolerance in a subject. Induction of long-term tolerance by B lymphocyte antigen-blocking reagents may avoid the necessity of repeated administration of
10 these blocking reagents. To achieve sufficient immunosuppression or tolerance in a subject, it may also be necessary to block the function of a combination of B lymphocyte antigens.

- The efficacy of particular blocking reagents in preventing organ transplant rejection or GVHD can be assessed using animal models that are predictive of efficacy
15 in humans. Examples of appropriate systems which can be used include allogeneic cardiac grafts in rats and xenogeneic pancreatic islet cell grafts in mice, both of which have been used to examine the immunosuppressive effects of CTLA4Ig fusion proteins *in vivo* as described in Lenschow *et al.*, Science 257:789-792 (1992) and Turka *et al.*, Proc. Natl. Acad. Sci USA, 89:11102-11105 (1992). In addition, murine models
20 of GVHD (see Paul ed., Fundamental Immunology, Raven Press, New York, 1989, pp. 846-847) can be used to determine the effect of blocking B lymphocyte antigen function *in vivo* on the development of that disease.

- Blocking antigen function may also be therapeutically useful for treating autoimmune diseases. Many autoimmune disorders are the result of inappropriate
25 activation of T cells that are reactive against self tissue and which promote the production of cytokines and autoantibodies involved in the pathology of the diseases. Preventing the activation of autoreactive T cells may reduce or eliminate disease symptoms. Administration of reagents which block costimulation of T cells by disrupting receptor:ligand interactions of B lymphocyte antigens can be used to
30 inhibit T cell activation and prevent production of autoantibodies or T cell-derived cytokines which may be involved in the disease process. Additionally, blocking reagents may induce antigen-specific tolerance of autoreactive T cells which could lead to long-term relief from the disease. The efficacy of blocking reagents in preventing or alleviating autoimmune disorders can be determined using a number

of well-characterized animal models of human autoimmune diseases. Examples include murine experimental autoimmune encephalitis, systemic lupus erythematosis in MRL/*lpr/lpr* mice or NZB hybrid mice, murine autoimmune collagen arthritis, diabetes mellitus in NOD mice and BB rats, and murine experimental myasthenia
5 gravis (see Paul ed., Fundamental Immunology, Raven Press, New York, 1989, pp. 840-856).

Upregulation of an antigen function (preferably a B lymphocyte antigen function), as a means of up regulating immune responses, may also be useful in therapy. Upregulation of immune responses may be in the form of enhancing an
10 existing immune response or eliciting an initial immune response. For example, enhancing an immune response through stimulating B lymphocyte antigen function may be useful in cases of viral infection. In addition, systemic viral diseases such as influenza, the common cold, and encephalitis might be alleviated by the administration of stimulatory forms of B lymphocyte antigens systemically.

15 Alternatively, anti-viral immune responses may be enhanced in an infected patient by removing T cells from the patient, costimulating the T cells *in vitro* with viral antigen-pulsed APCs either expressing a peptide of the present invention or together with a stimulatory form of a soluble peptide of the present invention and reintroducing the *in vitro* activated T cells into the patient. Another method of
20 enhancing anti-viral immune responses would be to isolate infected cells from a patient, transfect them with a nucleic acid encoding a protein of the present invention as described herein such that the cells express all or a portion of the protein on their surface, and reintroduce the transfected cells into the patient. The infected cells would now be capable of delivering a costimulatory signal to, and thereby activate,
25 T cells *in vivo*.

In another application, up regulation or enhancement of antigen function (preferably B lymphocyte antigen function) may be useful in the induction of tumor immunity. Tumor cells (*e.g.*, sarcoma, melanoma, lymphoma, leukemia, neuroblastoma, carcinoma) transfected with a nucleic acid encoding at least one
30 peptide of the present invention can be administered to a subject to overcome tumor-specific tolerance in the subject. If desired, the tumor cell can be transfected to express a combination of peptides. For example, tumor cells obtained from a patient can be transfected *ex vivo* with an expression vector directing the expression of a peptide having B7-2-like activity alone, or in conjunction with a peptide having B7-1-

like activity and/or B7-3-like activity. The transfected tumor cells are returned to the patient to result in expression of the peptides on the surface of the transfected cell. Alternatively, gene therapy techniques can be used to target a tumor cell for transfection *in vivo*.

- 5 The presence of the peptide of the present invention having the activity of a B lymphocyte antigen(s) on the surface of the tumor cell provides the necessary costimulation signal to T cells to induce a T cell mediated immune response against the transfected tumor cells. In addition, tumor cells which lack MHC class I or MHC class II molecules, or which fail to reexpress sufficient amounts of MHC class I or
- 10 MHC class II molecules, can be transfected with nucleic acid encoding all or a portion of (*e.g.*, a cytoplasmic-domain truncated portion) of an MHC class I α chain protein and β_2 microglobulin protein or an MHC class II α chain protein and an MHC class II β chain protein to thereby express MHC class I or MHC class II proteins on the cell surface. Expression of the appropriate class I or class II MHC in conjunction with a
- 15 peptide having the activity of a B lymphocyte antigen (*e.g.*, B7-1, B7-2, B7-3) induces a T cell mediated immune response against the transfected tumor cell. Optionally, a gene encoding an antisense construct which blocks expression of an MHC class II associated protein, such as the invariant chain, can also be cotransfected with a DNA encoding a peptide having the activity of a B lymphocyte antigen to promote
- 20 presentation of tumor associated antigens and induce tumor specific immunity. Thus, the induction of a T cell mediated immune response in a human subject may be sufficient to overcome tumor-specific tolerance in the subject.

The activity of a protein of the invention may, among other means, be measured by the following methods:

- 25 Suitable assays for thymocyte or splenocyte cytotoxicity include, without limitation, those described in: Current Protocols in Immunology, Ed by J. E. Coligan, A.M. Kruisbeek, D.H. Margulies, E.M. Shevach, W Strober, Pub. Greene Publishing Associates and Wiley-Interscience (Chapter 3, In Vitro assays for Mouse Lymphocyte Function 3.1-3.19; Chapter 7, Immunologic studies in Humans); Herrmann et al., Proc.
- 30 Natl. Acad. Sci. USA 78:2488-2492, 1981; Herrmann et al., J. Immunol. 128:1968-1974, 1982; Handa et al., J. Immunol. 135:1564-1572, 1985; Takai et al., J. Immunol. 137:3494-3500, 1986; Takai et al., J. Immunol. 140:508-512, 1988; Herrmann et al., Proc. Natl. Acad. Sci. USA 78:2488-2492, 1981; Herrmann et al., J. Immunol. 128:1968-1974, 1982; Handa et al., J. Immunol. 135:1564-1572, 1985; Takai et al., J.

Immunol. 137:3494-3500, 1986; Bowman et al., J. Virology 61:1992-1998; Takai et al., J. Immunol. 140:508-512, 1988; Bertagnoli et al., Cellular Immunology 133:327-341, 1991; Brown et al., J. Immunol. 153:3079-3092, 1994.

Assays for T-cell-dependent immunoglobulin responses and isotype
 5 switching (which will identify, among others, proteins that modulate T-cell
 dependent antibody responses and that affect Th1/Th2 profiles) include, without
 limitation, those described in: Maliszewski, J. Immunol. 144:3028-3033, 1990; and
 Assays for B cell function: *In vitro* antibody production, Mond, J.J. and Brunswick,
 M. In *Current Protocols in Immunology*. J.E.e.a. Coligan eds. Vol 1 pp. 3.8.1-3.8.16, John
 10 Wiley and Sons, Toronto. 1994.

Mixed lymphocyte reaction (MLR) assays (which will identify, among others,
 proteins that generate predominantly Th1 and CTL responses) include, without
 limitation, those described in: *Current Protocols in Immunology*, Ed by J. E. Coligan,
 A.M. Kruisbeek, D.H. Margulies, E.M. Shevach, W Strober, Pub. Greene Publishing
 15 Associates and Wiley-Interscience (Chapter 3, *In Vitro* assays for Mouse Lymphocyte
 Function 3.1-3.19; Chapter 7, *Immunologic studies in Humans*); Takai et al., J.
 Immunol. 137:3494-3500, 1986; Takai et al., J. Immunol. 140:508-512, 1988; Bertagnoli
 et al., J. Immunol. 149:3778-3783, 1992.

Dendritic cell-dependent assays (which will identify, among others, proteins
 20 expressed by dendritic cells that activate naive T-cells) include, without limitation,
 those described in: Guery et al., J. Immunol. 134:536-544, 1995; Inaba et al., *Journal of*
Experimental Medicine 173:549-559, 1991; Macatonia et al., *Journal of Immunology*
 154:5071-5079, 1995; Porgador et al., *Journal of Experimental Medicine* 182:255-260,
 1995; Nair et al., *Journal of Virology* 67:4062-4069, 1993; Huang et al., *Science*
 25 264:961-965, 1994; Macatonia et al., *Journal of Experimental Medicine* 169:1255-1264,
 1989; Bhardwaj et al., *Journal of Clinical Investigation* 94:797-807, 1994; and Inaba et
 al., *Journal of Experimental Medicine* 172:631-640, 1990.

Assays for lymphocyte survival/apoptosis (which will identify, among others,
 proteins that prevent apoptosis after superantigen induction and proteins that
 30 regulate lymphocyte homeostasis) include, without limitation, those described in:
 Darzynkiewicz et al., *Cytometry* 13:795-808, 1992; Gorczyca et al., *Leukemia*
 7:659-670, 1993; Gorczyca et al., *Cancer Research* 53:1945-1951, 1993; Itoh et al., *Cell*
 66:233-243, 1991; Zacharchuk, *Journal of Immunology* 145:4037-4045, 1990; Zamai et

al., Cytometry 14:891-897, 1993; Gorczyca et al., International Journal of Oncology 1:639-648, 1992.

Assays for proteins that influence early steps of T-cell commitment and development include, without limitation, those described in: Antica et al., Blood 5 84:111-117, 1994; Fine et al., Cellular Immunology 155:111-122, 1994; Galy et al., Blood 85:2770-2778, 1995; Toki et al., Proc. Nat. Acad Sci. USA 88:7548-7551, 1991.

Hematopoiesis Regulating Activity

A protein of the present invention may be useful in regulation of
10 hematopoiesis and, consequently, in the treatment of myeloid or lymphoid cell deficiencies. Even marginal biological activity in support of colony forming cells or of factor-dependent cell lines indicates involvement in regulating hematopoiesis, e.g. in supporting the growth and proliferation of erythroid progenitor cells alone or in combination with other cytokines, thereby indicating utility, for example, in treating
15 various anemias or for use in conjunction with irradiation/chemotherapy to stimulate the production of erythroid precursors and/or erythroid cells; in supporting the growth and proliferation of myeloid cells such as granulocytes and monocytes/macrophages (i.e., traditional CSF activity) useful, for example, in conjunction with chemotherapy to prevent or treat consequent myelo-suppression;
20 in supporting the growth and proliferation of megakaryocytes and consequently of platelets thereby allowing prevention or treatment of various platelet disorders such as thrombocytopenia, and generally for use in place of or complimentary to platelet transfusions; and/or in supporting the growth and proliferation of hematopoietic stem cells which are capable of maturing to any and all of the above-mentioned
25 hematopoietic cells and therefore find therapeutic utility in various stem cell disorders (such as those usually treated with transplantation, including, without limitation, aplastic anemia and paroxysmal nocturnal hemoglobinuria), as well as in repopulating the stem cell compartment post irradiation/chemotherapy, either *in-vivo* or *ex-vivo* (i.e., in conjunction with bone marrow transplantation or with peripheral
30 progenitor cell transplantation (homologous or heterologous)) as normal cells or genetically manipulated for gene therapy.

The activity of a protein of the invention may, among other means, be measured by the following methods:

Suitable assays for proliferation and differentiation of various hematopoietic lines are cited above.

Assays for embryonic stem cell differentiation (which will identify, among others, proteins that influence embryonic differentiation hematopoiesis) include, without limitation, those described in: Johansson et al. *Cellular Biology* 15:141-151, 1995; Keller et al., *Molecular and Cellular Biology* 13:473-486, 1993; McClanahan et al., *Blood* 81:2903-2915, 1993.

Assays for stem cell survival and differentiation (which will identify, among others, proteins that regulate lympho-hematopoiesis) include, without limitation, those described in: Methylcellulose colony forming assays, Freshney, M.G. In *Culture of Hematopoietic Cells*. R.I. Freshney, et al. eds. Vol pp. 265-268, Wiley-Liss, Inc., New York, NY. 1994; Hirayama et al., *Proc. Natl. Acad. Sci. USA* 89:5907-5911, 1992; Primitive hematopoietic colony forming cells with high proliferative potential, McNiece, I.K. and Briddell, R.A. In *Culture of Hematopoietic Cells*. R.I. Freshney, et al. eds. Vol pp. 23-39, Wiley-Liss, Inc., New York, NY. 1994; Neben et al., *Experimental Hematology* 22:353-359, 1994; Cobblestone area forming cell assay, Ploemacher, R.E. In *Culture of Hematopoietic Cells*. R.I. Freshney, et al. eds. Vol pp. 1-21, Wiley-Liss, Inc., New York, NY. 1994; Long term bone marrow cultures in the presence of stromal cells, Spooncer, E., Dexter, M. and Allen, T. In *Culture of Hematopoietic Cells*. R.I. Freshney, et al. eds. Vol pp. 163-179, Wiley-Liss, Inc., New York, NY. 1994; Long term culture initiating cell assay, Sutherland, H.J. In *Culture of Hematopoietic Cells*. R.I. Freshney, et al. eds. Vol pp. 139-162, Wiley-Liss, Inc., New York, NY. 1994.

Tissue Growth Activity

A protein of the present invention also may have utility in compositions used for bone, cartilage, tendon, ligament and/or nerve tissue growth or regeneration, as well as for wound healing and tissue repair and replacement, and in the treatment of burns, incisions and ulcers.

A protein of the present invention, which induces cartilage and/or bone growth in circumstances where bone is not normally formed, has application in the healing of bone fractures and cartilage damage or defects in humans and other animals. Such a preparation employing a protein of the invention may have prophylactic use in closed as well as open fracture reduction and also in the improved fixation of artificial joints. *De novo* bone formation induced by an

osteogenic agent contributes to the repair of congenital, trauma induced, or oncologic resection induced craniofacial defects, and also is useful in cosmetic plastic surgery.

A protein of this invention may also be used in the treatment of periodontal disease, and in other tooth repair processes. Such agents may provide an
5 environment to attract bone-forming cells, stimulate growth of bone-forming cells or induce differentiation of progenitors of bone-forming cells. A protein of the invention may also be useful in the treatment of osteoporosis or osteoarthritis, such as through stimulation of bone and/or cartilage repair or by blocking inflammation or processes of tissue destruction (collagenase activity, osteoclast activity, etc.) mediated by
10 inflammatory processes.

Another category of tissue regeneration activity that may be attributable to the protein of the present invention is tendon/ligament formation. A protein of the present invention, which induces tendon/ligament-like tissue or other tissue formation in circumstances where such tissue is not normally formed, has application
15 in the healing of tendon or ligament tears, deformities and other tendon or ligament defects in humans and other animals. Such a preparation employing a tendon/ligament-like tissue inducing protein may have prophylactic use in preventing damage to tendon or ligament tissue, as well as use in the improved fixation of tendon or ligament to bone or other tissues, and in repairing defects to
20 tendon or ligament tissue. De novo tendon/ligament-like tissue formation induced by a composition of the present invention contributes to the repair of congenital, trauma induced, or other tendon or ligament defects of other origin, and is also useful in cosmetic plastic surgery for attachment or repair of tendons or ligaments. The compositions of the present invention may provide an environment to attract tendon-
25 or ligament-forming cells, stimulate growth of tendon- or ligament-forming cells, induce differentiation of progenitors of tendon- or ligament-forming cells, or induce growth of tendon/ligament cells or progenitors *ex vivo* for return *in vivo* to effect tissue repair. The compositions of the invention may also be useful in the treatment of tendinitis, carpal tunnel syndrome and other tendon or ligament defects. The
30 compositions may also include an appropriate matrix and/or sequestering agent as a carrier as is well known in the art.

The protein of the present invention may also be useful for proliferation of neural cells and for regeneration of nerve and brain tissue, *i.e.* for the treatment of central and peripheral nervous system diseases and neuropathies, as well as

mechanical and traumatic disorders, which involve degeneration, death or trauma to neural cells or nerve tissue. More specifically, a protein may be used in the treatment of diseases of the peripheral nervous system, such as peripheral nerve injuries, peripheral neuropathy and localized neuropathies, and central nervous
5 system diseases, such as Alzheimer's, Parkinson's disease, Huntington's disease, amyotrophic lateral sclerosis, and Shy-Drager syndrome. Further conditions which may be treated in accordance with the present invention include mechanical and traumatic disorders, such as spinal cord disorders, head trauma and cerebrovascular diseases such as stroke. Peripheral neuropathies resulting from chemotherapy or
10 other medical therapies may also be treatable using a protein of the invention.

Proteins of the invention may also be useful to promote better or faster closure of non-healing wounds, including without limitation pressure ulcers, ulcers associated with vascular insufficiency, surgical and traumatic wounds, and the like.

It is expected that a protein of the present invention may also exhibit activity
15 for generation or regeneration of other tissues, such as organs (including, for example, pancreas, liver, intestine, kidney, skin, endothelium), muscle (smooth, skeletal or cardiac) and vascular (including vascular endothelium) tissue, or for promoting the growth of cells comprising such tissues. Part of the desired effects may be by inhibition or modulation of fibrotic scarring to allow normal tissue to
20 regenerate. A protein of the invention may also exhibit angiogenic activity.

A protein of the present invention may also be useful for gut protection or regeneration and treatment of lung or liver fibrosis, reperfusion injury in various tissues, and conditions resulting from systemic cytokine damage.

A protein of the present invention may also be useful for promoting or
25 inhibiting differentiation of tissues described above from precursor tissues or cells; or for inhibiting the growth of tissues described above.

The activity of a protein of the invention may, among other means, be measured by the following methods:

Assays for tissue generation activity include, without limitation, those
30 described in: International Patent Publication No. WO95/16035 (bone, cartilage, tendon); International Patent Publication No. WO95/05846 (nerve, neuronal); International Patent Publication No. WO91/07491 (skin, endothelium).

Assays for wound healing activity include, without limitation, those described in: Winter, Epidermal Wound Healing, pps. 71-112 (Maibach, HI and Rovee, DT,

eds.), Year Book Medical Publishers, Inc., Chicago, as modified by Eaglstein and Mertz, J. Invest. Dermatol 71:382-84 (1978).

Activin/Inhibin Activity

5 A protein of the present invention may also exhibit activin- or inhibin-related activities. Inhibins are characterized by their ability to inhibit the release of follicle stimulating hormone (FSH), while activins are characterized by their ability to stimulate the release of follicle stimulating hormone (FSH). Thus, a protein of the present invention, alone or in heterodimers with a member of the inhibin α family, 10 may be useful as a contraceptive based on the ability of inhibins to decrease fertility in female mammals and decrease spermatogenesis in male mammals. Administration of sufficient amounts of other inhibins can induce infertility in these mammals. Alternatively, the protein of the invention, as a homodimer or as a heterodimer with other protein subunits of the inhibin- β group, may be useful as a 15 fertility inducing therapeutic, based upon the ability of activin molecules in stimulating FSH release from cells of the anterior pituitary. See, for example, United States Patent 4,798,885. A protein of the invention may also be useful for advancement of the onset of fertility in sexually immature mammals, so as to increase the lifetime reproductive performance of domestic animals such as cows, sheep and 20 pigs.

The activity of a protein of the invention may, among other means, be measured by the following methods:

Assays for activin/inhibin activity include, without limitation, those described in: Vale et al., Endocrinology 91:562-572, 1972; Ling et al., Nature 321:779-782, 1986; 25 Vale et al., Nature 321:776-779, 1986; Mason et al., Nature 318:659-663, 1985; Forage et al., Proc. Natl. Acad. Sci. USA 83:3091-3095, 1986.

Chemotactic/Chemokinetic Activity

A protein of the present invention may have chemotactic or chemokinetic 30 activity (e.g., act as a chemokine) for mammalian cells, including, for example, monocytes, fibroblasts, neutrophils, T-cells, mast cells, eosinophils, epithelial and/or endothelial cells. Chemotactic and chemokinetic proteins can be used to mobilize or attract a desired cell population to a desired site of action. Chemotactic or chemokinetic proteins provide particular advantages in treatment of wounds and

other trauma to tissues, as well as in treatment of localized infections. For example, attraction of lymphocytes, monocytes or neutrophils to tumors or sites of infection may result in improved immune responses against the tumor or infecting agent.

A protein or peptide has chemotactic activity for a particular cell population if it can stimulate, directly or indirectly, the directed orientation or movement of such cell population. Preferably, the protein or peptide has the ability to directly stimulate directed movement of cells. Whether a particular protein has chemotactic activity for a population of cells can be readily determined by employing such protein or peptide in any known assay for cell chemotaxis.

10 The activity of a protein of the invention may, among other means, be measured by the following methods:

Assays for chemotactic activity (which will identify proteins that induce or prevent chemotaxis) consist of assays that measure the ability of a protein to induce the migration of cells across a membrane as well as the ability of a protein to induce the adhesion of one cell population to another cell population. Suitable assays for movement and adhesion include, without limitation, those described in: Current Protocols in Immunology, Ed by J.E. Coligan, A.M. Kruisbeek, D.H. Margulies, E.M. Shevach, W.Strober, Pub. Greene Publishing Associates and Wiley-Interscience (Chapter 6.12, Measurement of alpha and beta Chemokines 6.12.1-6.12.28; Taub et al. J. Clin. Invest. 95:1370-1376, 1995; Lind et al. APMIS 103:140-146, 1995; Muller et al Eur. J. Immunol. 25: 1744-1748; Gruber et al. J. of Immunol. 152:5860-5867, 1994; Johnston et al. J. of Immunol. 153: 1762-1768, 1994.

Hemostatic and Thrombolytic Activity

25 A protein of the invention may also exhibit hemostatic or thrombolytic activity. As a result, such a protein is expected to be useful in treatment of various coagulation disorders (including hereditary disorders, such as hemophilias) or to enhance coagulation and other hemostatic events in treating wounds resulting from trauma, surgery or other causes. A protein of the invention may also be useful for dissolving or inhibiting formation of thromboses and for treatment and prevention of conditions resulting therefrom (such as, for example, infarction of cardiac and central nervous system vessels (e.g., stroke).

The activity of a protein of the invention may, among other means, be measured by the following methods:

Assay for hemostatic and thrombolytic activity include, without limitation, those described in: Linet et al., J. Clin. Pharmacol. 26:131-140, 1986; Burdick et al., Thrombosis Res. 45:413-419, 1987; Humphrey et al., Fibrinolysis 5:71-79 (1991); Schaub, Prostaglandins 35:467-474, 1988.

5

Receptor/Ligand Activity

A protein of the present invention may also demonstrate activity as receptors, receptor ligands or inhibitors or agonists of receptor/ligand interactions. Examples of such receptors and ligands include, without limitation, cytokine receptors and their
10 ligands, receptor kinases and their ligands, receptor phosphatases and their ligands, receptors involved in cell-cell interactions and their ligands (including without limitation, cellular adhesion molecules (such as selectins, integrins and their ligands) and receptor/ligand pairs involved in antigen presentation, antigen recognition and development of cellular and humoral immune responses). Receptors and ligands are
15 also useful for screening of potential peptide or small molecule inhibitors of the relevant receptor/ligand interaction. A protein of the present invention (including, without limitation, fragments of receptors and ligands) may themselves be useful as inhibitors of receptor/ligand interactions.

The activity of a protein of the invention may, among other means, be
20 measured by the following methods:

Suitable assays for receptor-ligand activity include without limitation those described in: Current Protocols in Immunology, Ed by J.E. Coligan, A.M. Kruisbeek, D.H. Margulies, E.M. Shevach, W. Strober, Pub. Greene Publishing Associates and Wiley-Interscience (Chapter 7.28, Measurement of Cellular Adhesion under static
25 conditions 7.28.1-7.28.22), Takai et al., Proc. Natl. Acad. Sci. USA 84:6864-6868, 1987; Bierer et al., J. Exp. Med. 168:1145-1156, 1988; Rosenstein et al., J. Exp. Med. 169:149-160 1989; Stoltenborg et al., J. Immunol. Methods 175:59-68, 1994; Stitt et al., Cell 80:661-670, 1995.

Anti-Inflammatory Activity

30 Proteins of the present invention may also exhibit anti-inflammatory activity. The anti-inflammatory activity may be achieved by providing a stimulus to cells involved in the inflammatory response, by inhibiting or promoting cell-cell interactions (such as, for example, cell adhesion), by inhibiting or promoting

chemotaxis of cells involved in the inflammatory process, inhibiting or promoting cell extravasation, or by stimulating or suppressing production of other factors which more directly inhibit or promote an inflammatory response. Proteins exhibiting such activities can be used to treat inflammatory conditions including chronic or acute
5 conditions), including without limitation inflammation associated with infection (such as septic shock, sepsis or systemic inflammatory response syndrome (SIRS)), ischemia-reperfusion injury, endotoxin lethality, arthritis, complement-mediated hyperacute rejection, nephritis, cytokine or chemokine-induced lung injury, inflammatory bowel disease, Crohn's disease or resulting from over production of
10 cytokines such as TNF or IL-1. Proteins of the invention may also be useful to treat anaphylaxis and hypersensitivity to an antigenic substance or material.

Tumor Inhibition Activity

In addition to the activities described above for immunological treatment or
15 prevention of tumors, a protein of the invention may exhibit other anti-tumor activities. A protein may inhibit tumor growth directly or indirectly (such as, for example, via ADCC). A protein may exhibit its tumor inhibitory activity by acting on tumor tissue or tumor precursor tissue, by inhibiting formation of tissues necessary to support tumor growth (such as, for example, by inhibiting angiogenesis),
20 by causing production of other factors, agents or cell types which inhibit tumor growth, or by suppressing, eliminating or inhibiting factors, agents or cell types which promote tumor growth.

25 Other Activities

A protein of the invention may also exhibit one or more of the following additional activities or effects: inhibiting the growth, infection or function of, or killing, infectious agents, including, without limitation, bacteria, viruses, fungi and other parasites; effecting (suppressing or enhancing) bodily characteristics, including,
30 without limitation, height, weight, hair color, eye color, skin, fat to lean ratio or other tissue pigmentation, or organ or body part size or shape (such as, for example, breast augmentation or diminution, change in bone form or shape); effecting biorhythms or circadian cycles or rhythms; effecting the fertility of male or female subjects; effecting the metabolism, catabolism, anabolism, processing, utilization, storage or elimination

of dietary fat, lipid, protein, carbohydrate, vitamins, minerals, cofactors or other nutritional factors or component(s); effecting behavioral characteristics, including, without limitation, appetite, libido, stress, cognition (including cognitive disorders), depression (including depressive disorders) and violent behaviors; providing
5 analgesic effects or other pain reducing effects; promoting differentiation and growth of embryonic stem cells in lineages other than hematopoietic lineages; hormonal or endocrine activity; in the case of enzymes, correcting deficiencies of the enzyme and treating deficiency-related diseases; treatment of hyperproliferative disorders (such as, for example, psoriasis); immunoglobulin-like activity (such as, for example, the
10 ability to bind antigens or complement); and the ability to act as an antigen in a vaccine composition to raise an immune response against such protein or another material or entity which is cross-reactive with such protein.

15

ADMINISTRATION AND DOSING

A protein of the present invention (from whatever source derived, including without limitation from recombinant and non-recombinant sources) may be used in a pharmaceutical composition when combined with a pharmaceutically acceptable carrier. Such a composition may also contain (in addition to protein and a carrier) 5 diluents, fillers, salts, buffers, stabilizers, solubilizers, and other materials well known in the art. The term "pharmaceutically acceptable" means a non-toxic material that does not interfere with the effectiveness of the biological activity of the active ingredient(s). The characteristics of the carrier will depend on the route of 10 administration. The pharmaceutical composition of the invention may also contain cytokines, lymphokines, or other hematopoietic factors such as M-CSF, GM-CSF, TNF, IL-1, IL-2, IL-3, IL-4, IL-5, IL-6, IL-7, IL-8, IL-9, IL-10, IL-11, IL-12, IL-13, IL-14, IL-15, IFN, TNF0, TNF1, TNF2, G-CSF, Meg-CSF, thrombopoietin, stem cell factor, and erythropoietin. The pharmaceutical composition may further contain other 15 agents which either enhance the activity of the protein or compliment its activity or use in treatment. Such additional factors and/or agents may be included in the pharmaceutical composition to produce a synergistic effect with protein of the invention, or to minimize side effects. Conversely, protein of the present invention may be included in formulations of the particular cytokine, lymphokine, other 20 hematopoietic factor, thrombolytic or anti-thrombotic factor, or anti-inflammatory agent to minimize side effects of the cytokine, lymphokine, other hematopoietic factor, thrombolytic or anti-thrombotic factor, or anti-inflammatory agent.

A protein of the present invention may be active in multimers (e.g., heterodimers or homodimers) or complexes with itself or other proteins. As a result, 25 pharmaceutical compositions of the invention may comprise a protein of the invention in such multimeric or complexed form.

The pharmaceutical composition of the invention may be in the form of a complex of the protein(s) of present invention along with protein or peptide antigens. The protein and/or peptide antigen will deliver a stimulatory signal to both B and 30 T lymphocytes. B lymphocytes will respond to antigen through their surface immunoglobulin receptor. T lymphocytes will respond to antigen through the T cell receptor (TCR) following presentation of the antigen by MHC proteins. MHC and structurally related proteins including those encoded by class I and class II MHC genes on host cells will serve to present the peptide antigen(s) to T lymphocytes. The

antigen components could also be supplied as purified MHC-peptide complexes alone or with co-stimulatory molecules that can directly signal T cells. Alternatively antibodies able to bind surface immunoglobulin and other molecules on B cells as well as antibodies able to bind the TCR and other molecules on T cells can be
5 combined with the pharmaceutical composition of the invention.

The pharmaceutical composition of the invention may be in the form of a liposome in which protein of the present invention is combined, in addition to other pharmaceutically acceptable carriers, with amphipathic agents such as lipids which exist in aggregated form as micelles, insoluble monolayers, liquid crystals, or lamellar
10 layers in aqueous solution. Suitable lipids for liposomal formulation include, without limitation, monoglycerides, diglycerides, sulfatides, lysolecithin, phospholipids, saponin, bile acids, and the like. Preparation of such liposomal formulations is within the level of skill in the art, as disclosed, for example, in U.S. Patent No. 4,235,871; U.S. Patent No. 4,501,728; U.S. Patent No. 4,837,028; and U.S. Patent No. 4,737,323, all of
15 which are incorporated herein by reference.

As used herein, the term "therapeutically effective amount" means the total amount of each active component of the pharmaceutical composition or method that is sufficient to show a meaningful patient benefit, i.e., treatment, healing, prevention or amelioration of the relevant medical condition, or an increase in rate of treatment,
20 healing, prevention or amelioration of such conditions. When applied to an individual active ingredient, administered alone, the term refers to that ingredient alone. When applied to a combination, the term refers to combined amounts of the active ingredients that result in the therapeutic effect, whether administered in combination, serially or simultaneously.

25 In practicing the method of treatment or use of the present invention, a therapeutically effective amount of protein of the present invention is administered to a mammal having a condition to be treated. Protein of the present invention may be administered in accordance with the method of the invention either alone or in combination with other therapies such as treatments employing cytokines, lymphokines or other hematopoietic factors. When co-administered with one or
30 more cytokines, lymphokines or other hematopoietic factors, protein of the present invention may be administered either simultaneously with the cytokine(s), lymphokine(s), other hematopoietic factor(s), thrombolytic or anti-thrombotic factors, or sequentially. If administered sequentially, the attending physician will decide on

the appropriate sequence of administering protein of the present invention in combination with cytokine(s), lymphokine(s), other hematopoietic factor(s), thrombolytic or anti-thrombotic factors.

Administration of protein of the present invention used in the pharmaceutical composition or to practice the method of the present invention can be carried out in a variety of conventional ways, such as oral ingestion, inhalation, topical application or cutaneous, subcutaneous, intraperitoneal, parenteral or intravenous injection. Intravenous administration to the patient is preferred.

When a therapeutically effective amount of protein of the present invention is administered orally, protein of the present invention will be in the form of a tablet, capsule, powder, solution or elixir. When administered in tablet form, the pharmaceutical composition of the invention may additionally contain a solid carrier such as a gelatin or an adjuvant. The tablet, capsule, and powder contain from about 5 to 95% protein of the present invention, and preferably from about 25 to 90% protein of the present invention. When administered in liquid form, a liquid carrier such as water, petroleum, oils of animal or plant origin such as peanut oil, mineral oil, soybean oil, or sesame oil, or synthetic oils may be added. The liquid form of the pharmaceutical composition may further contain physiological saline solution, dextrose or other saccharide solution, or glycols such as ethylene glycol, propylene glycol or polyethylene glycol. When administered in liquid form, the pharmaceutical composition contains from about 0.5 to 90% by weight of protein of the present invention, and preferably from about 1 to 50% protein of the present invention.

When a therapeutically effective amount of protein of the present invention is administered by intravenous, cutaneous or subcutaneous injection, protein of the present invention will be in the form of a pyrogen-free, parenterally acceptable aqueous solution. The preparation of such parenterally acceptable protein solutions, having due regard to pH, isotonicity, stability, and the like, is within the skill in the art. A preferred pharmaceutical composition for intravenous, cutaneous, or subcutaneous injection should contain, in addition to protein of the present invention, an isotonic vehicle such as Sodium Chloride Injection, Ringer's Injection, Dextrose Injection, Dextrose and Sodium Chloride Injection, Lactated Ringer's Injection, or other vehicle as known in the art. The pharmaceutical composition of the present invention may also contain stabilizers, preservatives, buffers, antioxidants, or other additives known to those of skill in the art.

The amount of protein of the present invention in the pharmaceutical composition of the present invention will depend upon the nature and severity of the condition being treated, and on the nature of prior treatments which the patient has undergone. Ultimately, the attending physician will decide the amount of protein of the present invention with which to treat each individual patient. Initially, the attending physician will administer low doses of protein of the present invention and observe the patient's response. Larger doses of protein of the present invention may be administered until the optimal therapeutic effect is obtained for the patient, and at that point the dosage is not increased further. It is contemplated that the various pharmaceutical compositions used to practice the method of the present invention should contain about 0.01 μ g to about 100 mg (preferably about 0.1 ng to about 10 mg, more preferably about 0.1 μ g to about 1 mg) of protein of the present invention per kg body weight.

The duration of intravenous therapy using the pharmaceutical composition of the present invention will vary, depending on the severity of the disease being treated and the condition and potential idiosyncratic response of each individual patient. It is contemplated that the duration of each application of the protein of the present invention will be in the range of 12 to 24 hours of continuous intravenous administration. Ultimately the attending physician will decide on the appropriate duration of intravenous therapy using the pharmaceutical composition of the present invention.

Protein of the invention may also be used to immunize animals to obtain polyclonal and monoclonal antibodies which specifically react with the protein. Such antibodies may be obtained using either the entire protein or fragments thereof as an immunogen. The peptide immunogens additionally may contain a cysteine residue at the carboxyl terminus, and are conjugated to a hapten such as keyhole limpet hemocyanin (KLH). Methods for synthesizing such peptides are known in the art, for example, as in R.P. Merrifield, J. Amer.Chem.Soc. 85, 2149-2154 (1963); J.L. Krstenansky, *et al.*, FEBS Lett. 211, 10 (1987). Monoclonal antibodies binding to the protein of the invention may be useful diagnostic agents for the immunodetection of the protein. Neutralizing monoclonal antibodies binding to the protein may also be useful therapeutics for both conditions associated with the protein and also in the treatment of some forms of cancer where abnormal expression of the protein is involved. In the case of cancerous cells or leukemic cells, neutralizing monoclonal

antibodies against the protein may be useful in detecting and preventing the metastatic spread of the cancerous cells, which may be mediated by the protein.

For compositions of the present invention which are useful for bone, cartilage, tendon or ligament regeneration, the therapeutic method includes administering the composition topically, systematically, or locally as an implant or device. When administered, the therapeutic composition for use in this invention is, of course, in a pyrogen-free, physiologically acceptable form. Further, the composition may desirably be encapsulated or injected in a viscous form for delivery to the site of bone, cartilage or tissue damage. Topical administration may be suitable for wound healing and tissue repair. Therapeutically useful agents other than a protein of the invention which may also optionally be included in the composition as described above, may alternatively or additionally, be administered simultaneously or sequentially with the composition in the methods of the invention. Preferably for bone and/or cartilage formation, the composition would include a matrix capable of delivering the protein-containing composition to the site of bone and/or cartilage damage, providing a structure for the developing bone and cartilage and optimally capable of being resorbed into the body. Such matrices may be formed of materials presently in use for other implanted medical applications.

The choice of matrix material is based on biocompatibility, biodegradability, mechanical properties, cosmetic appearance and interface properties. The particular application of the compositions will define the appropriate formulation. Potential matrices for the compositions may be biodegradable and chemically defined calcium sulfate, tricalciumphosphate, hydroxyapatite, polylactic acid, polyglycolic acid and polyanhydrides. Other potential materials are biodegradable and biologically well-defined, such as bone or dermal collagen. Further matrices are comprised of pure proteins or extracellular matrix components. Other potential matrices are nonbiodegradable and chemically defined, such as sintered hydroxapatite, bioglass, aluminates, or other ceramics. Matrices may be comprised of combinations of any of the above mentioned types of material, such as polylactic acid and hydroxyapatite or collagen and tricalciumphosphate. The bioceramics may be altered in composition, such as in calcium-aluminate-phosphate and processing to alter pore size, particle size, particle shape, and biodegradability.

Presently preferred is a 50:50 (mole weight) copolymer of lactic acid and glycolic acid in the form of porous particles having diameters ranging from 150 to 800

microns. In some applications, it will be useful to utilize a sequestering agent, such as carboxymethyl cellulose or autologous blood clot, to prevent the protein compositions from disassociating from the matrix.

A preferred family of sequestering agents is cellulosic materials such as
5 alkylcelluloses (including hydroxyalkylcelluloses), including methylcellulose, ethylcellulose, hydroxyethylcellulose, hydroxypropylcellulose, hydroxypropylmethylcellulose, and carboxymethylcellulose, the most preferred being cationic salts of carboxymethylcellulose (CMC). Other preferred sequestering agents include
10 hyaluronic acid, sodium alginate, poly(ethylene glycol), polyoxyethylene oxide, carboxyvinyl polymer and poly(vinyl alcohol). The amount of sequestering agent useful herein is 0.5-20 wt%, preferably 1-10 wt% based on total formulation weight, which represents the amount necessary to prevent desorption of the protein from the polymer matrix and to provide appropriate handling of the composition, yet not so much that the progenitor cells are prevented from infiltrating the matrix, thereby
15 providing the protein the opportunity to assist the osteogenic activity of the progenitor cells.

In further compositions, proteins of the invention may be combined with other agents beneficial to the treatment of the bone and/or cartilage defect, wound, or tissue in question. These agents include various growth factors such as epidermal
20 growth factor (EGF), platelet derived growth factor (PDGF), transforming growth factors (TGF- α and TGF- β), and insulin-like growth factor (IGF).

The therapeutic compositions are also presently valuable for veterinary applications. Particularly domestic animals and thoroughbred horses, in addition to humans, are desired patients for such treatment with proteins of the present
25 invention.

The dosage regimen of a protein-containing pharmaceutical composition to be used in tissue regeneration will be determined by the attending physician considering various factors which modify the action of the proteins, e.g., amount of tissue weight desired to be formed, the site of damage, the condition of the damaged
30 tissue, the size of a wound, type of damaged tissue (e.g., bone), the patient's age, sex, and diet, the severity of any infection, time of administration and other clinical factors. The dosage may vary with the type of matrix used in the reconstitution and with inclusion of other proteins in the pharmaceutical composition. For example, the addition of other known growth factors, such as IGF I (insulin like growth factor I),

to the final composition, may also effect the dosage. Progress can be monitored by periodic assessment of tissue/bone growth and/or repair, for example, X-rays, histomorphometric determinations and tetracycline labeling.

Polynucleotides of the present invention can also be used for gene therapy.

- 5 Such polynucleotides can be introduced either *in vivo* or *ex vivo* into cells for expression in a mammalian subject. Polynucleotides of the invention may also be administered by other known methods for introduction of nucleic acid into a cell or organism (including, without limitation, in the form of viral vectors or naked DNA).

- 10 Cells may also be cultured *ex vivo* in the presence of proteins of the present invention in order to proliferate or to produce a desired effect on or activity in such cells. Treated cells can then be introduced *in vivo* for therapeutic purposes.

Patent and literature references cited herein are incorporated by reference as if fully set forth.

TABLE 3

<u>Sel.</u>	<u>Species</u>	<u>Stage</u>	<u>Tissue</u>	<u>Cell Type</u>	<u>Treatment</u>
AA	Human	Fetal	Kidney	19-23wks., M/F pool of 5	None
AC	Human	Adult	Placenta	26yrs., 1 specimen	None
AD	Mouse	Fetal	Embryo	ES cells	LIF
AE	Mouse	Adult	Spleen	N/A	ConA + dendritic cells
AF	Mouse	Fetal	Brain	N/A	None
AG	Mouse	Fetal	Brain	N/A	None
AH	Mouse	Fetal	Thymus	N/A	None
AJ	Human	Adult	Testes	10-61yrs., pool of 11	None
AK	Human	Fetal	Kidney	19-23wks., M/F pool of 5	None
AM	Human	Fetal	Kidney	19-23wks., M/F pool of 5	None
AN	Mouse	Adult	Bone Marrow	Stromal cell line FCM-4	None
AO	Mouse	Adult	Thymus	N/A	None
AP	Human	Adult	Placenta	26yrs., 1 specimen	None
AQ	Human	Adult	Ovary	PA-1 Teratocarcinoma	RA or Activin or None
AR	Human	Adult	Retina	16-75yrs., pool of 76	None
AS	Human	Fetal	Brain	19-23wks., M/F pool of 5	None
AT	Human	Adult	Blood	Lymphocytes+Dendritic Cells	MLR
AU	Human	Adult	Testes	10-61yrs., pool of 11	None
AV	Mouse	Adult	Spleen	N/A	ConA + dendritic cells
AW	Human	Adult	Ovary	PA-1 Teratocarcinoma	RA or Activin or None
AX	Human	Adult	Testes	10-61yrs., pool of 11	None
AY	Human	Adult	Retina	16-75yrs., pool of 76	None
AZ	Human	Adult	Colon	Adenocarcinoma Caco2	None
BB	Human	N/A	Blood	Adult PBMC/TH1or2	TH1or2 driven response
BC	Mouse	Fetal	Embryo	ES cells	LIF
BD	Human	Fetal	Kidney	19-23wks., M/F pool of 5	None
BG	Human	Adult	Brain	N/A	None
BH	Human	Adult	Ovary	PA-1 Teratocarcinoma	RA or Activin or None
BI	Human	Fetal	Kidney	19-23wks., M/F pool of 5	None
BJ	Human	Adult	Ovary	PA-1 Teratocarcinoma	RA or Activin or None
BL	Human	Adult	Testes	10-61yrs., pool of 11	None
BN	Human	Adult	Placenta	26yrs., 1 specimen	None
BO	Human	Adult	Retina	16-75yrs., pool of 76	None
BP	Human	Fetal	Kidney	19-23wks., M/F pool of 5	None

BT	Human	Adult	Blood	PBMC	None
BV	Human	Adult	Brain	N/A	None
BZ	Human	Fetal	Kidney	19-23wks., M/F pool of 5	None
C	Human	Adult	Blood	PBMC	conA + PMA
CA	Mouse	Fetal	Embryo	ES cell embryoid bodies	2-12 days post LIF
CC	Human	Adult	Brain	N/A	None
CJ	Human	Fetal	Brain	19-23wks., M/F pool of 5	None
CL	Human	Adult	Retina	16-75yrs., pool of 76	None
CR	Human	Adult	Testes	10-61yrs., pool of 11	None
D	Human	Adult	Blood	PBMC	conA + PMA
DD	Human	Adult	Testes	10-61yrs., pool of 11	None
DG	Human	Adult	Placenta	26yrs., 1 specimen	None
DH	Human	Fetal	Brain	19-23wks., M/F pool of 5	None
DI	Human	Adult	Testes	10-61yrs., pool of 11	None
DL	Human	Adult	Brain	N/A	None
DO	Human	Adult	Testes	10-61yrs., pool of 11	None
DP	Mouse	Fetal	Embryo	ES cell embryoid bodies	2-12 days post LIF
DU	Human	Fetal	Brain	19-23wks., M/F pool of 5	None
DY	Human	Adult	Brain	N/A	None
DZ	Human	Adult	Testes	Teratocarcinoma NCCIT	None
EF	Human	Adult	Liver	N/A	None
EK	Human	Fetal	Brain	19-23wks., M/F pool of 5	None
EM	Human	Fetal	Kidney	N/A	None
EN	Human	Fetal	Brain	19-23wks., M/F pool of 5	None
FE	Human	Adult	Brain	N/A	None
FH	Human	Fetal	Brain	19-23wks., M/F pool of 5	None
FQ	Human	Adult	Testes	10-61yrs., pool of 11	None
FT	Chicken	Fetal	Fetal Lung	Fetal Lung	N/A
FU	Chicken	Fetal	Limb Bud	Fetal St. 23 Limb Bud	N/A
FZ	Human	Adult	Placenta	26yrs., 1 specimen	None
G	Human	Adult	Blood	PBMC	conA + PMA
GA	Human	Adult	Testes	10-61yrs., pool of 11	None
GC	Human	Adult	Testes	10-61yrs., pool of 11	None
GE	Human	Adult	Brain	N/A	None
GJ	Mouse	Adult	Spleen	N/A	IL-12
GL	Mouse	Adult	Lymph Node	N/A	IL-12
GW	Chicken	26	Limb Bud	Fetal St.26 Limb Bud	N/A

GZ	Human	Fetal	Brain	19-23wks., M/F pool of 5	None
H	Human	Adult	Blood	PBMC	PHA+PMA+MLR
HB	Human	Fetal	Kidney	N/A	None
HE	Human	Adult	Testes	10-61yrs., pool of 11	None
HL	Human	Fetal	Kidney	N/A	None
HR	Human	Adult	Brain	N/A	None
HS	Human	Adult	Brain	N/A	None
HV	Human	Adult	Testes	10-61yrs., pool of 11	None
HX	Human	Adult	Brain	Hippocampus	None
IB	Human	Fetal	Carcinoma	NTD2-1	None
IE	Human	Fetal	Brain	19-23wks., M/F pool of 5	None
IF	Human	Adult	Uterus	N/A	None
IJ	Human	Adult	Blood	PBMC	GCSF in vivo
IK	Human	Adult	Retina	Retinoblastoma Y79	None
IR	Human	Adult	Brain	Hippocampus	None
IS	Human	Adult	Trachea	N/A	None
IT	Human	Adult	Brain	Thalamus	None
IU	Human	Adult	Thyroid	N/A	None
IW	Human	Adult	Retina	Retinoblastoma WERI-Rb1	None
IX	Human	Adult	Brain	N/A	None
IY	Human	Adult	Brain	N/A	None
IZ	Human	Adult	Brain	N/A	None
J	Human	Adult	Blood	PBMC	PHA+PMA+MLR
JA	Human	Adult	Retina	16-75yrs., pool of 76	None
JB	Human	Adult	Retina	16-75yrs., pool of 76	None
JF	Human	Adult	Retina	16-75yrs., pool of 76	None
JK	Human	Fetal	Kidney	N/A	None
JL	Human	Fetal	Kidney	N/A	None
JM	Human	Adult	Testes	10-61yrs., pool of 11	None
JN	Human	Adult	Retina	16-75yrs., pool of 76	None
JQ	Human	Adult	Testes	10-61yrs., pool of 11	None
JS	Human	Adult	Testes	10-61yrs., pool of 11	None
JT	Human	Adult	Retina	16-75yrs., pool of 76	None
JW	Human	Adult	Testes	10-61yrs., pool of 11	None
JY	Human	Adult	Testes	10-61yrs., pool of 11	None
JZ	Human	Adult	Retina	16-75yrs., pool of 76	None
K	Mouse	Adult	Bone Marrow	Adult Stromal cell line FCM-4	None

KA	Human	Adult	Testes	10-61yrs., pool of 11	None
KB	Human	Adult	Retina	16-75yrs., pool of 76	None
KG	Human	Adult	Testes	10-61yrs., pool of 11	None
KH	Human	Adult	Testes	10-61yrs., pool of 11	None
KI	Human	Adult	Retina	Retinoblastoma Y79	None
KJ	Human	Fetal	Brain	N/A	None
KL	Human	Adult	Brain	N/A	None
KM	Human	Adult	Retina	Retinoblastoma Y79	None
KN	Human	Adult	Blood	PBMC	GCSF in vivo
KO	Human	Adult	Uterus	N/A	None
KP	Human	Adult	Retina	16-75yrs., pool of 76	None
KQ	Human	Adult	Retina	16-75yrs., pool of 76	None
KR	Human	Adult	Retina	16-75yrs., pool of 76	None
KS	Human	Adult	Retina	16-75yrs., pool of 76	None
KT	Human	Adult	Retina	16-75yrs., pool of 76	None
KU	Human	Adult	Retina	16-75yrs., pool of 76	None
KV	Human	Adult	Retina	16-75yrs., pool of 76	None
KW	Human	Adult	Retina	16-75yrs., pool of 76	None
KX	Human	Adult	Retina	16-75yrs., pool of 76	None
KY	Human	Adult	Retina	16-75yrs., pool of 76	None
KZ	Human	Adult	Retina	16-75yrs., pool of 76	None
L	Mouse	Adult	Thymus	N/A	None
LC	Human	Adult	Retina	16-75yrs., pool of 76	None
LE	Human	Adult	Retina	16-75yrs., pool of 76	None
LF	Human	Adult	Spinal Cord	N/A	None
LG	Human	Adult	Testes	N/A	None
LH	Human	Fetal	Liver	N/A	None
LI	Human	Adult	Brain	N/A	None
LJ	Human	Fetal	Carcinoma	NTD2-1	None
LK	Human	Fetal	Carcinoma	NTD2-1	None
LL	Human	Adult	Thyroid	N/A	None
LN	Human	Adult	Uterus	N/A	None
LO	Human	Adult	Thyroid	N/A	None
LP	Human	Adult	Blood	PBMC	GCSF in vivo
LR	Human	Adult	Lymph Node	N/A	None
LS	Human	Adult	Brain	Substantia Nigra	None
LT	Human	Adult	Retina	Retinoblastoma Y79	None

LU	Human	Adult	Retina	Retinoblastoma Y79	None
LV	Human	Adult	Thyroid	N/A	None
LW	Human	Fetal	Carcinoma	NTD2-1	None
LX	Human	Fetal	Kidney	N/A	None
LZ	Human	Adult	Uterus	N/A	None
M	Human	Adult	Neural	Glioblastoma line T98G	None
MA	Human	Fetal	Carcinoma	NTD2-1	None
MB	Human	Adult	Spinal Cord	N/A	None
MC	Human	Adult	Thyroid	N/A	None
MD	Human	Fetal	Kidney	N/A	None
ME	Human	Adult	Brain	Substantia Nigra	None
MF	Human	Fetal	Kidney	N/A	None
MG	Human	Adult	Brain	Hippocampus	None
MH	Human	Adult	Brain	Thalamus	None
MI	Human	Adult	Spinal Cord	N/A	None
MJ	Human	Adult	Lymph Node	N/A	None
MK	Human	Adult	Testes	N/A	None
ML	Human	Adult	Brain	Caudate Nucleus	None
MM	Human	Adult	Retina	Retinoblastoma WERI-Rb1	None
MN	Human	Adult	Brain	Hippocampus	None
MP	Human	Adult	Testes	N/A	None
MQ	Human	Adult	Testes	N/A	None
MR	Human	Adult	Testes	N/A	None
MS	Human	Adult	Testes	N/A	None
MT	Human	Adult	Testes	N/A	None
MU	Human	Adult	Testes	N/A	None
MX	Human	Adult	Retina	Retinoblastoma WERI-Rb1	None
MY	Human	Fetal	Brain	N/A	None
MZ	Human	Adult	Spinal Cord	N/A	None
N	Rat	Fetal	Pancreas	N/A	None
NA	Human	Adult	Brain	Corpus Callosum	None
NB	Human	Adult	Spinal Cord	N/A	None
NC	Human	Adult	Prostate	N/A	None
ND	Human	Adult	Prostate	N/A	None
NE	Human	Adult	Brain	Hippocampus	None
NF	Human	Adult	Brain	Substantia Nigra	None
NG	Human	Adult	Brain	Hippocampus	None

NH	Human	Adult	Brain	Thalamus	None
NHAB	Chicken	34	Limb Bud	Fetal St.34 Limb Bud	N/A
NHAE	Mouse	Adult	Tumor	N/A	IL-12
NHAG	Mouse	Adult	Bone Marrow	Dendritic Cells	LPS/gamma IFN
NHAN	Mouse	Adult	Tumor	N/A	IL-12
NHAW	Mouse	Adult	Bone Marrow	Dendritic Cells	Resting
NI	Human	Adult	Thyroid	N/A	None
NJ	Human	Adult	Pineal Gland	N/A	None
NK	Human	Adult	Pineal Gland	N/A	None
NL	Human	Fetal	Brain	N/A	None
NM	Human	Adult	Blood	Erythroleukemia TF-1	None
NN	Human	Adult	Kidney	293 embryonal carcinoma line	None
NO	Human	Adult	Brain	Substantia Nigra	None
NP	Human	Adult	Kidney	293 embryonal carcinoma line	None
NQ	Human	Adult	Blood	Erythroleukemia TF-1	None
NR	Human	Adult	Bone	RD-ES	None
NS	Human	Adult	Retina	Retinoblastoma WERI-Rb1	None
NT	Human	Adult	Brain	Corpus Callosum	None
NU	Human	Adult	Brain	Caudate Nucleus	None
NV	Human	Adult	Brain	Thalamus	None
NW	Human	Adult	Brain	Corpus Callosum	None
NX	Human	Adult	Bone	RD-ES	None
NY	Human	Adult	Brain	Substantia Nigra	None
NZ	Human	Adult	Blood	Erythroleukemia TF-1	None
O	Human	Adult	Blood	Dendritic Cells	None
P	Mouse	Fetal	Embryo	ES cell embryoid bodies	6 days post LIF
PA	Human	Adult	Bone	RD-ES	None
PB	Human	Adult	Kidney	N/A	None
PC	Human	Adult	Retina	Retinoblastoma WERI-Rb1	None
PD	Human	Fetal	Kidney	N/A	None
PE	Human	Adult	Blood	Chronic Myelogenous Leukemia K562	None
PF	Human	Adult	Thyroid	N/A	None
PG	Human	Adult	Thyroid	N/A	None
PH	Human	Adult	Colon	Adenocarcinoma Caco2	None
PI	Human	Adult	Thyroid	N/A	None
PJ	Human	Adult	Testis	Embryonal Carcinoma NT2D1	RA for 23 days
PK	Human	Fetal	Kidney	293 cell line	None

PL	Human	Fetal	Kidney	293 cell line	None
PM	Human	Fetal	Kidney	293 cell line	None
PO	Human	Adult	Placenta	26yrs., 1 specimen	None
PP	Human	Adult	Blood	LymphoblasticLeukemiaMOLT-4	None

Table 3 Cell Type and Treatment Key:

conA: concanavalin A

GCSF: granulocyte-colony stimulating factor

INF: interferon

LIF: leukemia inhibitory factor

days post LIF: cells harvested number of days shown after LIF removal

LPS: lipopolysaccharide

MLR: mixed lymphocyte reaction

PBMC: peripheral blood mononuclear cells

PHA: phytohemagglutinin

PMA: phorbol myristate acetate

RA: retinoic acid

What is claimed is:

1. An isolated polynucleotide comprising a nucleotide sequence selected from the group consisting of:

SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, SEQ ID NO:28, SEQ ID NO:29, SEQ ID NO:30, SEQ ID NO:31, SEQ ID NO:32, SEQ ID NO:33, SEQ ID NO:34, SEQ ID NO:35, SEQ ID NO:36, SEQ ID NO:37, SEQ ID NO:38, SEQ ID NO:39, SEQ ID NO:40, SEQ ID NO:41, SEQ ID NO:42, SEQ ID NO:43, SEQ ID NO:44, SEQ ID NO:45, SEQ ID NO:46, SEQ ID NO:47, SEQ ID NO:48, SEQ ID NO:49, SEQ ID NO:50, SEQ ID NO:51, SEQ ID NO:52, SEQ ID NO:53, SEQ ID NO:54, SEQ ID NO:55, SEQ ID NO:56, SEQ ID NO:57, SEQ ID NO:58, SEQ ID NO:59, SEQ ID NO:60, SEQ ID NO:61, SEQ ID NO:62, SEQ ID NO:63, SEQ ID NO:64, SEQ ID NO:65, SEQ ID NO:66, SEQ ID NO:67, SEQ ID NO:68, SEQ ID NO:69, SEQ ID NO:70, SEQ ID NO:71, SEQ ID NO:72, SEQ ID NO:73, SEQ ID NO:74, SEQ ID NO:75, SEQ ID NO:76, SEQ ID NO:77, SEQ ID NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:81, SEQ ID NO:82, SEQ ID NO:83, SEQ ID NO:84, SEQ ID NO:85, SEQ ID NO:86, SEQ ID NO:87, SEQ ID NO:88, SEQ ID NO:89, SEQ ID NO:90, SEQ ID NO:91, SEQ ID NO:92, SEQ ID NO:93, SEQ ID NO:94, SEQ ID NO:95, SEQ ID NO:96, SEQ ID NO:97, SEQ ID NO:98, SEQ ID NO:99, SEQ ID NO:100, SEQ ID NO:101, SEQ ID NO:102, SEQ ID NO:103, SEQ ID NO:104, SEQ ID NO:105, SEQ ID NO:106, SEQ ID NO:107, SEQ ID NO:108, SEQ ID NO:109, SEQ ID NO:110, SEQ ID NO:111, SEQ ID NO:112, SEQ ID NO:113, SEQ ID NO:114, SEQ ID NO:115, SEQ ID NO:116, SEQ ID NO:117, SEQ ID NO:118, SEQ ID NO:119, SEQ ID NO:120, SEQ ID NO:121, SEQ ID NO:122, SEQ ID NO:123, SEQ ID NO:124, SEQ ID NO:125, SEQ ID NO:126, SEQ ID NO:127, SEQ ID NO:128, SEQ ID NO:129, SEQ ID NO:130, SEQ ID NO:131, SEQ ID NO:132, SEQ ID NO:133, SEQ ID NO:134, SEQ ID NO:135, SEQ ID NO:136, SEQ ID NO:137, SEQ ID NO:138, SEQ ID NO:139, SEQ ID NO:140, SEQ ID NO:141, SEQ ID NO:142, SEQ ID NO:143, SEQ ID NO:144, SEQ ID NO:145, SEQ ID NO:146, SEQ ID NO:147, SEQ ID

NO:148, SEQ ID NO:149, SEQ ID NO:150, SEQ ID NO:151, SEQ ID NO:152, SEQ ID NO:153, SEQ ID NO:154, SEQ ID NO:155, SEQ ID NO:156, SEQ ID NO:157, SEQ ID NO:158, SEQ ID NO:159, SEQ ID NO:160, SEQ ID NO:161, SEQ ID NO:162, SEQ ID NO:163, SEQ ID NO:164, SEQ ID NO:165, SEQ ID NO:166, SEQ ID NO:167, SEQ ID NO:168, SEQ ID NO:169, SEQ ID NO:170, SEQ ID NO:171, SEQ ID NO:172, SEQ ID NO:173, SEQ ID NO:174, SEQ ID NO:175, SEQ ID NO:176, SEQ ID NO:177, SEQ ID NO:178, SEQ ID NO:179, SEQ ID NO:180, SEQ ID NO:181, SEQ ID NO:182, SEQ ID NO:183, SEQ ID NO:184, SEQ ID NO:185, SEQ ID NO:186, SEQ ID NO:187, SEQ ID NO:188, SEQ ID NO:189, SEQ ID NO:190, SEQ ID NO:191, SEQ ID NO:192, SEQ ID NO:193, SEQ ID NO:194, SEQ ID NO:195, SEQ ID NO:196, SEQ ID NO:197, SEQ ID NO:198, SEQ ID NO:199, SEQ ID NO:200, SEQ ID NO:201, SEQ ID NO:202, SEQ ID NO:203, SEQ ID NO:204, SEQ ID NO:205, SEQ ID NO:206, SEQ ID NO:207, SEQ ID NO:208, SEQ ID NO:209, SEQ ID NO:210, SEQ ID NO:211, SEQ ID NO:212, SEQ ID NO:213, SEQ ID NO:214, SEQ ID NO:215, SEQ ID NO:216, SEQ ID NO:217, SEQ ID NO:218, SEQ ID NO:219, SEQ ID NO:220, SEQ ID NO:221, SEQ ID NO:222, SEQ ID NO:223, SEQ ID NO:224, SEQ ID NO:225, SEQ ID NO:226, SEQ ID NO:227, SEQ ID NO:228, SEQ ID NO:229, SEQ ID NO:230, SEQ ID NO:231, SEQ ID NO:232, SEQ ID NO:233, SEQ ID NO:234, SEQ ID NO:235, SEQ ID NO:236, SEQ ID NO:237, SEQ ID NO:238, SEQ ID NO:239, SEQ ID NO:240, SEQ ID NO:241, SEQ ID NO:242, SEQ ID NO:243, SEQ ID NO:244, SEQ ID NO:245, SEQ ID NO:246, SEQ ID NO:247, SEQ ID NO:248, SEQ ID NO:249, SEQ ID NO:250, SEQ ID NO:251, SEQ ID NO:252, SEQ ID NO:253, SEQ ID NO:254, SEQ ID NO:255, SEQ ID NO:256, SEQ ID NO:257, SEQ ID NO:258, SEQ ID NO:259, SEQ ID NO:260, SEQ ID NO:261, SEQ ID NO:262, SEQ ID NO:263, SEQ ID NO:264, SEQ ID NO:265, SEQ ID NO:266, SEQ ID NO:267, SEQ ID NO:268, SEQ ID NO:269, SEQ ID NO:270, SEQ ID NO:271, SEQ ID NO:272, SEQ ID NO:273, SEQ ID NO:274, SEQ ID NO:275, SEQ ID NO:276, SEQ ID NO:277, SEQ ID NO:278, SEQ ID NO:279, SEQ ID NO:280, SEQ ID NO:281, SEQ ID NO:282, SEQ ID NO:283, SEQ ID NO:284, SEQ ID NO:285, SEQ ID NO:286, SEQ ID NO:287, SEQ ID NO:288, SEQ ID NO:289, SEQ ID NO:290, SEQ ID NO:291, SEQ ID NO:292, SEQ ID NO:293, SEQ ID NO:294, SEQ ID NO:295, SEQ ID NO:296, SEQ ID NO:297, SEQ ID NO:298, SEQ ID NO:299, SEQ ID NO:300, SEQ ID NO:301, SEQ ID NO:302, SEQ ID NO:303, SEQ ID NO:304, SEQ ID NO:305, SEQ ID NO:306, SEQ

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or a complement of said sequence.

2. An isolated polynucleotide consisting of a nucleotide sequence selected from the group consisting of:

SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, SEQ ID NO:28, SEQ ID NO:29, SEQ ID NO:30, SEQ ID NO:31, SEQ ID NO:32, SEQ ID NO:33, SEQ ID NO:34, SEQ ID NO:35, SEQ ID NO:36, SEQ ID NO:37, SEQ ID NO:38, SEQ ID NO:39, SEQ ID NO:40, SEQ ID NO:41, SEQ ID NO:42, SEQ ID NO:43, SEQ ID NO:44, SEQ ID NO:45, SEQ ID NO:46, SEQ ID NO:47, SEQ ID NO:48, SEQ ID NO:49, SEQ ID NO:50, SEQ ID NO:51, SEQ ID NO:52, SEQ ID NO:53, SEQ ID NO:54, SEQ ID NO:55, SEQ ID NO:56, SEQ ID NO:57, SEQ ID NO:58, SEQ ID NO:59, SEQ ID NO:60, SEQ ID NO:61, SEQ ID NO:62, SEQ ID NO:63, SEQ ID NO:64, SEQ ID NO:65, SEQ ID NO:66, SEQ ID NO:67, SEQ ID NO:68, SEQ ID NO:69, SEQ ID NO:70, SEQ ID NO:71, SEQ ID NO:72, SEQ ID NO:73, SEQ ID NO:74, SEQ ID NO:75, SEQ ID NO:76, SEQ ID NO:77, SEQ ID NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:81, SEQ ID NO:82, SEQ ID NO:83, SEQ ID NO:84, SEQ ID NO:85, SEQ ID NO:86, SEQ ID NO:87, SEQ ID NO:88, SEQ ID NO:89, SEQ ID NO:90, SEQ ID NO:91, SEQ ID NO:92, SEQ ID NO:93, SEQ ID NO:94, SEQ ID NO:95, SEQ ID NO:96, SEQ ID NO:97, SEQ ID NO:98, SEQ ID NO:99, SEQ ID NO:100, SEQ ID NO:101, SEQ ID NO:102, SEQ ID NO:103, SEQ ID NO:104, SEQ ID NO:105, SEQ ID NO:106, SEQ ID NO:107, SEQ ID NO:108, SEQ ID NO:109, SEQ ID NO:110, SEQ ID NO:111, SEQ ID NO:112, SEQ ID NO:113, SEQ ID NO:114, SEQ ID NO:115,

SEQ ID NO:116, SEQ ID NO:117, SEQ ID NO:118, SEQ ID NO:119, SEQ ID NO:120, SEQ ID NO:121, SEQ ID NO:122, SEQ ID NO:123, SEQ ID NO:124, SEQ ID NO:125, SEQ ID NO:126, SEQ ID NO:127, SEQ ID NO:128, SEQ ID NO:129, SEQ ID NO:130, SEQ ID NO:131, SEQ ID NO:132, SEQ ID NO:133, SEQ ID NO:134, SEQ ID NO:135, SEQ ID NO:136, SEQ ID NO:137, SEQ ID NO:138, SEQ ID NO:139, SEQ ID NO:140, SEQ ID NO:141, SEQ ID NO:142, SEQ ID NO:143, SEQ ID NO:144, SEQ ID NO:145, SEQ ID NO:146, SEQ ID NO:147, SEQ ID NO:148, SEQ ID NO:149, SEQ ID NO:150, SEQ ID NO:151, SEQ ID NO:152, SEQ ID NO:153, SEQ ID NO:154, SEQ ID NO:155, SEQ ID NO:156, SEQ ID NO:157, SEQ ID NO:158, SEQ ID NO:159, SEQ ID NO:160, SEQ ID NO:161, SEQ ID NO:162, SEQ ID NO:163, SEQ ID NO:164, SEQ ID NO:165, SEQ ID NO:166, SEQ ID NO:167, SEQ ID NO:168, SEQ ID NO:169, SEQ ID NO:170, SEQ ID NO:171, SEQ ID NO:172, SEQ ID NO:173, SEQ ID NO:174, SEQ ID NO:175, SEQ ID NO:176, SEQ ID NO:177, SEQ ID NO:178, SEQ ID NO:179, SEQ ID NO:180, SEQ ID NO:181, SEQ ID NO:182, SEQ ID NO:183, SEQ ID NO:184, SEQ ID NO:185, SEQ ID NO:186, SEQ ID NO:187, SEQ ID NO:188, SEQ ID NO:189, SEQ ID NO:190, SEQ ID NO:191, SEQ ID NO:192, SEQ ID NO:193, SEQ ID NO:194, SEQ ID NO:195, SEQ ID NO:196, SEQ ID NO:197, SEQ ID NO:198, SEQ ID NO:199, SEQ ID NO:200, SEQ ID NO:201, SEQ ID NO:202, SEQ ID NO:203, SEQ ID NO:204, SEQ ID NO:205, SEQ ID NO:206, SEQ ID NO:207, SEQ ID NO:208, SEQ ID NO:209, SEQ ID NO:210, SEQ ID NO:211, SEQ ID NO:212, SEQ ID NO:213, SEQ ID NO:214, SEQ ID NO:215, SEQ ID NO:216, SEQ ID NO:217, SEQ ID NO:218, SEQ ID NO:219, SEQ ID NO:220, SEQ ID NO:221, SEQ ID NO:222, SEQ ID NO:223, SEQ ID NO:224, SEQ ID NO:225, SEQ ID NO:226, SEQ ID NO:227, SEQ ID NO:228, SEQ ID NO:229, SEQ ID NO:230, SEQ ID NO:231, SEQ ID NO:232, SEQ ID NO:233, SEQ ID NO:234, SEQ ID NO:235, SEQ ID NO:236, SEQ ID NO:237, SEQ ID NO:238, SEQ ID NO:239, SEQ ID NO:240, SEQ ID NO:241, SEQ ID NO:242, SEQ ID NO:243, SEQ ID NO:244, SEQ ID NO:245, SEQ ID NO:246, SEQ ID NO:247, SEQ ID NO:248, SEQ ID NO:249, SEQ ID NO:250, SEQ ID NO:251, SEQ ID NO:252, SEQ ID NO:253, SEQ ID NO:254, SEQ ID NO:255, SEQ ID NO:256, SEQ ID NO:257, SEQ ID NO:258, SEQ ID NO:259, SEQ ID NO:260, SEQ ID NO:261, SEQ ID NO:262, SEQ ID NO:263, SEQ ID NO:264, SEQ ID NO:265, SEQ ID NO:266, SEQ ID NO:267, SEQ ID NO:268, SEQ ID NO:269, SEQ ID NO:270, SEQ ID NO:271, SEQ ID NO:272, SEQ ID NO:273, SEQ ID

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or a complement of said sequence.

3. An isolated polynucleotide consisting essentially of a nucleotide sequence selected from the group consisting of:

SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, SEQ ID NO:28, SEQ ID NO:29, SEQ ID NO:30, SEQ ID NO:31, SEQ ID NO:32, SEQ ID NO:33, SEQ ID NO:34, SEQ ID NO:35, SEQ ID NO:36, SEQ ID NO:37, SEQ ID NO:38, SEQ ID NO:39, SEQ ID NO:40, SEQ ID NO:41, SEQ ID NO:42, SEQ ID NO:43, SEQ ID NO:44, SEQ ID NO:45, SEQ ID NO:46, SEQ ID NO:47, SEQ ID NO:48, SEQ ID NO:49, SEQ ID NO:50, SEQ ID NO:51, SEQ ID NO:52, SEQ ID NO:53, SEQ ID NO:54, SEQ ID NO:55, SEQ ID NO:56, SEQ ID NO:57, SEQ ID NO:58, SEQ ID NO:59, SEQ ID NO:60, SEQ ID NO:61, SEQ ID NO:62, SEQ ID NO:63, SEQ ID NO:64, SEQ ID NO:65, SEQ ID NO:66, SEQ ID NO:67, SEQ ID NO:68, SEQ ID NO:69, SEQ ID NO:70, SEQ ID NO:71, SEQ ID NO:72, SEQ ID NO:73, SEQ ID NO:74, SEQ ID NO:75, SEQ ID NO:76, SEQ ID NO:77, SEQ ID NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:81,

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or a complement of said sequence.

4. An isolated polynucleotide comprising a nucleotide sequence which hybridizes to a sequence selected from the group consisting of:

SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, SEQ ID NO:28, SEQ ID NO:29, SEQ ID NO:30, SEQ ID NO:31, SEQ ID NO:32, SEQ ID NO:33, SEQ ID NO:34, SEQ ID NO:35, SEQ ID NO:36, SEQ ID NO:37, SEQ ID NO:38, SEQ ID NO:39, SEQ ID NO:40, SEQ ID NO:41, SEQ ID NO:42, SEQ ID NO:43, SEQ ID NO:44, SEQ ID NO:45, SEQ ID NO:46,

SEQ ID NO:47, SEQ ID NO:48, SEQ ID NO:49, SEQ ID NO:50, SEQ ID NO:51, SEQ ID NO:52, SEQ ID NO:53, SEQ ID NO:54, SEQ ID NO:55, SEQ ID NO:56, SEQ ID NO:57, SEQ ID NO:58, SEQ ID NO:59, SEQ ID NO:60, SEQ ID NO:61, SEQ ID NO:62, SEQ ID NO:63, SEQ ID NO:64, SEQ ID NO:65, SEQ ID NO:66, SEQ ID NO:67, SEQ ID NO:68, SEQ ID NO:69, SEQ ID NO:70, SEQ ID NO:71, SEQ ID NO:72, SEQ ID NO:73, SEQ ID NO:74, SEQ ID NO:75, SEQ ID NO:76, SEQ ID NO:77, SEQ ID NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:81, SEQ ID NO:82, SEQ ID NO:83, SEQ ID NO:84, SEQ ID NO:85, SEQ ID NO:86, SEQ ID NO:87, SEQ ID NO:88, SEQ ID NO:89, SEQ ID NO:90, SEQ ID NO:91, SEQ ID NO:92, SEQ ID NO:93, SEQ ID NO:94, SEQ ID NO:95, SEQ ID NO:96, SEQ ID NO:97, SEQ ID NO:98, SEQ ID NO:99, SEQ ID NO:100, SEQ ID NO:101, SEQ ID NO:102, SEQ ID NO:103, SEQ ID NO:104, SEQ ID NO:105, SEQ ID NO:106, SEQ ID NO:107, SEQ ID NO:108, SEQ ID NO:109, SEQ ID NO:110, SEQ ID NO:111, SEQ ID NO:112, SEQ ID NO:113, SEQ ID NO:114, SEQ ID NO:115, SEQ ID NO:116, SEQ ID NO:117, SEQ ID NO:118, SEQ ID NO:119, SEQ ID NO:120, SEQ ID NO:121, SEQ ID NO:122, SEQ ID NO:123, SEQ ID NO:124, SEQ ID NO:125, SEQ ID NO:126, SEQ ID NO:127, SEQ ID NO:128, SEQ ID NO:129, SEQ ID NO:130, SEQ ID NO:131, SEQ ID NO:132, SEQ ID NO:133, SEQ ID NO:134, SEQ ID NO:135, SEQ ID NO:136, SEQ ID NO:137, SEQ ID NO:138, SEQ ID NO:139, SEQ ID NO:140, SEQ ID NO:141, SEQ ID NO:142, SEQ ID NO:143, SEQ ID NO:144, SEQ ID NO:145, SEQ ID NO:146, SEQ ID NO:147, SEQ ID NO:148, SEQ ID NO:149, SEQ ID NO:150, SEQ ID NO:151, SEQ ID NO:152, SEQ ID NO:153, SEQ ID NO:154, SEQ ID NO:155, SEQ ID NO:156, SEQ ID NO:157, SEQ ID NO:158, SEQ ID NO:159, SEQ ID NO:160, SEQ ID NO:161, SEQ ID NO:162, SEQ ID NO:163, SEQ ID NO:164, SEQ ID NO:165, SEQ ID NO:166, SEQ ID NO:167, SEQ ID NO:168, SEQ ID NO:169, SEQ ID NO:170, SEQ ID NO:171, SEQ ID NO:172, SEQ ID NO:173, SEQ ID NO:174, SEQ ID NO:175, SEQ ID NO:176, SEQ ID NO:177, SEQ ID NO:178, SEQ ID NO:179, SEQ ID NO:180, SEQ ID NO:181, SEQ ID NO:182, SEQ ID NO:183, SEQ ID NO:184, SEQ ID NO:185, SEQ ID NO:186, SEQ ID NO:187, SEQ ID NO:188, SEQ ID NO:189, SEQ ID NO:190, SEQ ID NO:191, SEQ ID NO:192, SEQ ID NO:193, SEQ ID NO:194, SEQ ID NO:195, SEQ ID NO:196, SEQ ID NO:197, SEQ ID NO:198, SEQ ID NO:199, SEQ ID NO:200, SEQ ID NO:201, SEQ ID NO:202, SEQ ID NO:203, SEQ ID NO:204, SEQ ID NO:205, SEQ ID NO:206, SEQ ID NO:207, SEQ ID NO:208, SEQ

ID NO:209, SEQ ID NO:210, SEQ ID NO:211, SEQ ID NO:212, SEQ ID NO:213, SEQ ID NO:214, SEQ ID NO:215, SEQ ID NO:216, SEQ ID NO:217, SEQ ID NO:218, SEQ ID NO:219, SEQ ID NO:220, SEQ ID NO:221, SEQ ID NO:222, SEQ ID NO:223, SEQ ID NO:224, SEQ ID NO:225, SEQ ID NO:226, SEQ ID NO:227, SEQ ID NO:228, SEQ ID NO:229, SEQ ID NO:230, SEQ ID NO:231, SEQ ID NO:232, SEQ ID NO:233, SEQ ID NO:234, SEQ ID NO:235, SEQ ID NO:236, SEQ ID NO:237, SEQ ID NO:238, SEQ ID NO:239, SEQ ID NO:240, SEQ ID NO:241, SEQ ID NO:242, SEQ ID NO:243, SEQ ID NO:244, SEQ ID NO:245, SEQ ID NO:246, SEQ ID NO:247, SEQ ID NO:248, SEQ ID NO:249, SEQ ID NO:250, SEQ ID NO:251, SEQ ID NO:252, SEQ ID NO:253, SEQ ID NO:254, SEQ ID NO:255, SEQ ID NO:256, SEQ ID NO:257, SEQ ID NO:258, SEQ ID NO:259, SEQ ID NO:260, SEQ ID NO:261, SEQ ID NO:262, SEQ ID NO:263, SEQ ID NO:264, SEQ ID NO:265, SEQ ID NO:266, SEQ ID NO:267, SEQ ID NO:268, SEQ ID NO:269, SEQ ID NO:270, SEQ ID NO:271, SEQ ID NO:272, SEQ ID NO:273, SEQ ID NO:274, SEQ ID NO:275, SEQ ID NO:276, SEQ ID NO:277, SEQ ID NO:278, SEQ ID NO:279, SEQ ID NO:280, SEQ ID NO:281, SEQ ID NO:282, SEQ ID NO:283, SEQ ID NO:284, SEQ ID NO:285, SEQ ID NO:286, SEQ ID NO:287, SEQ ID NO:288, SEQ ID NO:289, SEQ ID NO:290, SEQ ID NO:291, SEQ ID NO:292, SEQ ID NO:293, SEQ ID NO:294, SEQ ID NO:295, SEQ ID NO:296, SEQ ID NO:297, SEQ ID NO:298, SEQ ID NO:299, SEQ ID NO:300, SEQ ID NO:301, SEQ ID NO:302, SEQ ID NO:303, SEQ ID NO:304, SEQ ID NO:305, SEQ ID NO:306, SEQ ID NO:307, SEQ ID NO:308, SEQ ID NO:309, SEQ ID NO:310, SEQ ID NO:311, SEQ ID NO:312, SEQ ID NO:313, SEQ ID NO:314, SEQ ID NO:315, SEQ ID NO:316, SEQ ID NO:317, SEQ ID NO:318, SEQ ID NO:319, SEQ ID NO:320, SEQ ID NO:321, SEQ ID NO:322, SEQ ID NO:323, SEQ ID NO:324, SEQ ID NO:325, SEQ ID NO:326, SEQ ID NO:327, SEQ ID NO:328, SEQ ID NO:329, SEQ ID NO:330, SEQ ID NO:331, SEQ ID NO:332, SEQ ID NO:333, SEQ ID NO:334, SEQ ID NO:335, SEQ ID NO:336, SEQ ID NO:337, SEQ ID NO:338, SEQ ID NO:339, SEQ ID NO:340, SEQ ID NO:341, SEQ ID NO:342, SEQ ID NO:343, SEQ ID NO:344, SEQ ID NO:345, SEQ ID NO:346, SEQ ID NO:347, SEQ ID NO:348, SEQ ID NO:349, SEQ ID NO:350, SEQ ID NO:351, SEQ ID NO:352, SEQ ID NO:353, SEQ ID NO:354, SEQ ID NO:355, SEQ ID NO:356, SEQ ID NO:357, SEQ ID NO:358, SEQ ID NO:359, SEQ ID NO:360, SEQ ID NO:361, SEQ ID NO:362, SEQ ID NO:363, SEQ ID NO:364, SEQ ID NO:365, SEQ ID NO:366, SEQ ID NO:367,

SEQ ID NO:368, SEQ ID NO:369, SEQ ID NO:370, SEQ ID NO:371, SEQ ID NO:372, SEQ ID NO:373, SEQ ID NO:374, SEQ ID NO:375, SEQ ID NO:376, SEQ ID NO:377, SEQ ID NO:378, SEQ ID NO:379, SEQ ID NO:380, SEQ ID NO:381, SEQ ID NO:382, SEQ ID NO:383, SEQ ID NO:384, SEQ ID NO:385, SEQ ID NO:386, SEQ ID NO:387, SEQ ID NO:388, SEQ ID NO:389, SEQ ID NO:390, SEQ ID NO:391, SEQ ID NO:392, SEQ ID NO:393, SEQ ID NO:394, SEQ ID NO:395, SEQ ID NO:396, SEQ ID NO:397, SEQ ID NO:398, SEQ ID NO:399, SEQ ID NO:400, SEQ ID NO:401, SEQ ID NO:402, SEQ ID NO:403, SEQ ID NO:404, SEQ ID NO:405, SEQ ID NO:406, SEQ ID NO:407, SEQ ID NO:408, SEQ ID NO:409, SEQ ID NO:410, SEQ ID NO:411, SEQ ID NO:412, SEQ ID NO:413, SEQ ID NO:414, SEQ ID NO:415, SEQ ID NO:416, SEQ ID NO:417, SEQ ID NO:418, SEQ ID NO:419, SEQ ID NO:420, SEQ ID NO:421, SEQ ID NO:422, SEQ ID NO:423, SEQ ID NO:424, SEQ ID NO:425, SEQ ID NO:426, SEQ ID NO:427, SEQ ID NO:428, SEQ ID NO:429, SEQ ID NO:430, SEQ ID NO:431, SEQ ID NO:432, SEQ ID NO:433, SEQ ID NO:434, SEQ ID NO:435, SEQ ID NO:436, SEQ ID NO:437, SEQ ID NO:438, SEQ ID NO:439, SEQ ID NO:440, SEQ ID NO:441, SEQ ID NO:442, SEQ ID NO:443, SEQ ID NO:444, SEQ ID NO:445, SEQ ID NO:446, SEQ ID NO:447, SEQ ID NO:448, SEQ ID NO:449, SEQ ID NO:450, SEQ ID NO:451, SEQ ID NO:452, SEQ ID NO:453, SEQ ID NO:454, SEQ ID NO:455, SEQ ID NO:456, SEQ ID NO:457, SEQ ID NO:458, SEQ ID NO:459, SEQ ID NO:460, SEQ ID NO:461, SEQ ID NO:462, SEQ ID NO:463, SEQ ID NO:464, SEQ ID NO:465, SEQ ID NO:466, SEQ ID NO:467, SEQ ID NO:468, SEQ ID NO:469, SEQ ID NO:470, SEQ ID NO:471, SEQ ID NO:472, SEQ ID NO:473, SEQ ID NO:474, SEQ ID NO:475, SEQ ID NO:476, SEQ ID NO:477, SEQ ID NO:478, SEQ ID NO:479, SEQ ID NO:480, SEQ ID NO:481, SEQ ID NO:482, SEQ ID NO:483, SEQ ID NO:484, SEQ ID NO:485, SEQ ID NO:486, SEQ ID NO:487, SEQ ID NO:488, SEQ ID NO:489, SEQ ID NO:490, SEQ ID NO:491, SEQ ID NO:492, SEQ ID NO:493, SEQ ID NO:494, SEQ ID NO:495, SEQ ID NO:496, SEQ ID NO:497, SEQ ID NO:498, SEQ ID NO:499, SEQ ID NO:500, SEQ ID NO:501, SEQ ID NO:502, SEQ ID NO:503, SEQ ID NO:504, SEQ ID NO:505, SEQ ID NO:506, SEQ ID NO:507, SEQ ID NO:508, SEQ ID NO:509, SEQ ID NO:510, SEQ ID NO:511, SEQ ID NO:512, SEQ ID NO:513, SEQ ID NO:514, SEQ ID NO:515, SEQ ID NO:516, SEQ ID NO:517, SEQ ID NO:518, SEQ ID NO:519, SEQ ID NO:520, SEQ ID NO:521, SEQ ID NO:522, SEQ ID NO:523, SEQ ID NO:524, SEQ ID NO:525, SEQ ID

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or to a complement of said sequence.

5. An isolated protein encoded by an isolated polynucleotide of claim 1.
6. An isolated protein encoded by an isolated polynucleotide of claim 2.

7. An isolated protein encoded by an isolated polynucleotide of claim 3.
8. An isolated protein encoded by an isolated polynucleotide of claim 4.

SEQUENCE LISTING

<110> Jacobs, Kenneth
 McCoy, John M.
 LaVallie, Edward R.
 Racie, Lisa A.
 Evans, Cheryl
 Merberg, David
 Treacy, Maurice
 Bowman, Michael R.
 Genetics Institute, Inc.

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atagcagaat ataaattatt tttgagctct cacagaactt tgctgagata cattataacc 180
tgggccataa aacaaacctc aaccaattaa tacagttgaa accagagtgt gctctctgac 240
cacagtagaa tcaaaactatt aattagtaat ataataatga aaatctccac actcttaaaa 300
ataaacaaca tactcgag 318

```

<210> 17
 <211> 314
 <212> DNA

<213> Homo sapiens

<400> 17

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gaattcggcc ttcattggcct acccgccctcg gcctcccaaa gtgctgggat cacaggcatg 60
agccaccatg cccgggtcttt acttttaaat ttatctatct ttatactata gactatttgt 120
aaataccatt aatttaattt cagttgggtat tttatgacag ctgtgttggtc aagcactgac 180
cctgtcaagt tcgtactctt tctaccttag tgtgagtcac ttaatttaag gtaggattga 240
ataattgggc tatataaaat ttggtttctt agaacaatac attggtaatt atgaagattt 300
gcaggatact cgag 314
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<210> 18

<211> 534

<212> DNA

<213> Homo sapiens

<400> 18

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gaattcggcc ttcattggcct agtctgttca ccatcagtaa cttctactaa atgttcacta 60
atttttaaca accctgcaca tagagagtga gatttaagtt aactgttttt gttttagaat 120
tctgtaaaatg ttaaatagaa gagaggcatg aaatcatttc tgataaaaat agaagttaa 180
tctgtgttaa aggggtttgt ggcccccttc tccctagctc tgtctctcag ctgaataggt 240
tgtgtcaggg agtgacaacg cagtgggtgtg ttggtgctat ctgtgttgag tgaccggcaa 300
aagaccacaa aaggaaatct ttagttttcc ctccaagtct tgttctttac atgagagcat 360
aggaagcctc cagaagactt gcatgatcct agtattgagt cctcttctat gcatctatca 420
aagaaaatga gagaatttca gaggggctgg gattatttat ttatttattt atttatttta 480
gagatgggat tttgccatgt tgcccaggcc attcttgaac cccaatact cgag 534
```

<210> 19

<211> 315

<212> DNA

<213> Homo sapiens

<400> 19

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gaattcggcc ttcattggcct acctttctaa tttttctcaa aagctaaaa ccctaaaagc 60
tgaattctgg gggaaaaaaa ttatacacag acaaaaactca cataggttga tttgattatg 120
aaactaagta ttattttaat ttcagggttt ttttggtttt gttttttttg tttctgtttt 180
tgtttctgtt tttttgagaa ggagtttcgc tcttggtgcc caggctggag tgcagtggcg 240
tggtctcggc tcaactgcaac ctccgcctcc cagggttcaag taaatctcct acctcagcct 300
cccaagaaac tcgag 315
```

<210> 20

<211> 491

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (114)

<400> 20

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tcgagatcgc accactgcac tccggcctgg gcgacagatg gagactccgt ctcncaaaaa 120
aaaaaaaaaa aaaagagatg agtgagggtt cccatgttta ccaaggctgg tcttgaaactc 180
ctggcctcag gcagtcctcc cgcctcggcc tctcaaaaag cgctgggatt acaggcatga 240
gtaccaggc ctggccaagt cttttgtttt tccttccttc ctctctctct cctttctctt 300
tctttctttt ttaaaaaata gtatttagtt ttccaaacta agaccaagaa ctcttgctct 360
atataattat ttactatttc ctccatttaa ggttatatag tttttctttg aaaaaatttt 420
gtcattatca agttaaatta atacatctgt attttatggt cttattacta ttacaactgg 480
tgtctctcga g 491
```

<210> 21

<211> 304

<212> DNA

<213> Mus musculus

<400> 21

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gaattcggcc aagtaaaagc agggagaact ctttatctga gccatgttcc tatctcctgg 60
aacgcttcta tgcacctttc tcctcccccac actttttctg aggggtgacag ccagagaacc 120
agtcttttga gagaaaaacc cttttgtaca gcatatagta gaatctcaat acatggaatt 180
aagagaaaaga cttaggaagg aaaccattcc caccaatgga agaaatcaac ttgttcacag 240
aggatccacc aaacgaagaa aattcatata cagtcagcta ccgacagaca caccagagct 300
cgag                                         304

```

<210> 22

<211> 287

<212> DNA

<213> Mus musculus

<400> 22

```

gaattcggcc aaagaggcct attgaatcct cctctgccac gtcgatcacc tccatagttt 60
cccccatat gagagcctcc tgggtccccc cctggggccat ctggcttagg tgccttacac 120
tggttgcatt catttctcca agagaagttc atgttctcac atgtaggatt aggacacttc 180
cagttctcag ctcgttgctg tcctccacct ccaccacctc cactggggaa tcctccccgg 240
ccaccaccac cactgccacc tcctccatag cctccacggc actcgag                287

```

<210> 23

<211> 303

<212> DNA

<213> Mus musculus

<400> 23

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gaattcggcc aaagaggcct agacgtccag tagaacactg aatacaagta tactggatcc 60
aatgtcactc tgttttctgtg acaaacactg tcacaaaaag caacttagga gacaaaaggc 120
tttatttgac ttacattccc aggccattct ttttgtttgt ttggttggtt tttttgttg 180
ttgttgttgt ttttccagga tagtcagggc tacacagaga aacctgtctc tgaaaaacta 240
ccccccccc agaaaaaaga gatgcaaac caaacaggaa aatgtacata cagcaggctc 300
gag                                         303

```

<210> 24

<211> 155

<212> DNA

<213> Mus musculus

<400> 24

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gaattcggct aaagaggcct acgattgaat tctagacctg cctcgagcca cactcacctc 60
acacacacct tatgagcacc ccacttgctc tccactcctc ctactcgct ctctcacctt 120
tctcttgccc cagtctttta ttgatactcc tcgag                                         155

```

<210> 25

<211> 401

<212> DNA

<213> Mus musculus

<400> 25

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gaattcggcc ttcattggcct atccagtatt catgccttat ccagcacacc catggccctt 60
gcccattgaa gctggaagta acttttacca tgttcctttg agagccccc gggctataag 120
ctcccacttt agatcacagc agaaggctga gtggttcttt ccattccccc atcagaatac 180
aagtgttcac agcagagggtc aaaactttgc tattaaatac ctccaaccct ggagatttta 240
ttcaagggaa agattcacaa gatgttcagc aactcctcag cagtatcacc cgaatggacc 300
atttgggaga tcacagagac aggtctctcc tgtacagacc catcctaaga gcaggcagat 360
gtccagaact cttgagaggt ctgggacagt ggtctctcga g                                         401

```

<210> 26
 <211> 495
 <212> DNA
 <213> Mus musculus

<400> 26
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 tgcttgcaag tcatcatgac catgagacac tgctggacag caggccccag ttcttggtgg 120
 gtcctgcttt tgtatgtcca tgtcattttg gccagagcca catctgcacc tcagacaact 180
 gccactgtct taactggaag ctcaaaagac ccatgctctt cctggctctc agcagtccca 240
 agtaagcagt acccagcact ggatgtgata tggccagaaa aagaagtgcc actgaatgga 300
 actctgacct tgcctgttac tgctgcagc cgcttccct acttcagcat cctctactgg 360
 ctgggcaatg gttccttcat tgagcacctc ccaggccggc tgaaggaggg ccacacaagt 420
 cgcgagcaca ggaacacaag cacctggctg cacagggcct tgggtgctga acaactgagc 480
 cccaccaaac tcgag 495

<210> 27
 <211> 321
 <212> DNA
 <213> Mus musculus

<400> 27
 gaattcggcc ttcattggcct agattgaaat gcgcagtgtt tttgtttttt gttttgtttt 60
 gttttgtttt gttttttcca aagcaaacgg aggtcaagag cttcatgcgt ctgaggagtt 120
 cctccgtcac aggttttgat ccagccattt gatgtaacta ttcctagtcc ggattccac 180
 ggagaagttg tgcggccagc ttgtaaaaat catacaacca tggaaagcgt cctcaaagtg 240
 gtccaaggtc acgttcacac ccgcactctc caagcgcttg gcgtacatga tcccatcgtc 300
 ccgcaggacg tcgtgctcga g 321

<210> 28
 <211> 343
 <212> DNA
 <213> Mus musculus

<400> 28
 gaattcggcc ttcattggcct acaccacgct aagtgcacaa aaattcctgt ggattctcct 60
 cgctcctgctt tttgaacagt atgtcactaa aacagtgcgt gtggctgctt atggagaaaa 120
 ggatgctatt ttagaggcag atactgagtt ctggatttca gtctgttgtg aattcagtgt 180
 ccagcatcag gtccagagct tgatgcatat cctccactac ctgaaaaagc tgccagagga 240
 aaaggaaaga gccacctcca agacagtatc tactaagagt gaagtacaag atgaaatgtt 300
 gccagttttt aagggtggacg ctacacacaa caagcagctc gag 343

<210> 29
 <211> 504
 <212> DNA
 <213> Mus musculus

<400> 29
 gaattcggct tcatagccta acctaaacag gctctcctct cagttatcaa ctgtggacac 60
 ttgtgcgac tctgatggct gtccctgcaag aaatctatga gtttttcctt tatggggact 120
 ttggccgcca gctgcctgct tctcattgcc ctgtggggcc aggaggcaaa tgcgctgccc 180
 gtcaaacacc ggtgcaagct tgaggtgtcc aacttccagc agccatacat cgtcaaccgc 240
 acctttatgc tggccaagga ggccagcctt gcagataaca acacagatgt ccggctcatc 300
 ggggagaaac tgttccgagg agtcagtgtt aaggatcact gctacctgat gaagcagggtg 360
 ctcaacttca ccctggaaga cgcttctgct cccagtcag acaggttcca gccctacatg 420
 caggagggtg tgccttctc gaccaaactc agcaatcagc tcagctcctg tcagatcagc 480
 ggtgacgacc agaacaaact cgag 504

<210> 30
 <211> 428

<212> DNA

<213> Mus musculus

<400> 30

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gaattcggcc ttcattggcct agtgaaatca ctggtaagga gaaaacatct gaaatggaat 60
tcaagtatct ggtcttcatt gtgctttgtc aatacctgga caatacgttt ttctcagaga 120
cagaagcaat tacaacagag cagcaatcac tgtctacttt aatcacaccg tcgttatatg 180
ttacaactga ttctcaaaac acagcaggga atgctttgag tcagacaaca agattcaaga 240
acattttcttc tggacagcaa gcatcacctg cccaaatcac tectgaacaa gcaacaccag 300
ctgtttatgt ctcttcaagc ccacttactt ataacattac cagacaagca gaatcagcgg 360
tcaacaactc cttgcctcaa acatcaccat ctgggttcac ttgaccaat cagccatcac 420
ttctcgag                                     428

```

<210> 31

<211> 360

<212> DNA

<213> Mus musculus

<400> 31

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gaattcggcc aaagaggcct accttaaagc cgtataactta tgaatttaaa gtggaaaatt 60
tttttgggtgg ccctggcccc ctggccagat tccagctggc cgtcagtgtc cgcgtgtctc 120
tctgaagagg ctctgcggtt ctggtccctg tgcttgagct ccagggtgccc ccagacatta 180
tacaacgtga aggctgagat ctttccccct tcgggaatgg agtattgcag aacagggtcc 240
ctctgctccc tggagggttt gatcacgagg ctctcagacc tcttgagggt ggataaagat 300
gaagcactga ctgaatctga tgagcatttt tcgacaaaagc ttatgtatga agttgtcgag 360

```

<210> 32

<211> 343

<212> DNA

<213> Mus musculus

<400> 32

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gaattcggcc ttcattggcct agacttaagg ttagaactac gacgactacg agaaaaacat 60
cttaaaagaga ttcaggacct gcagagtcgc cagaagcatg aaattgaatc tttgtatact 120
aaactgggca aggttcccc tgcgtgtcatt attccccag ctgctcctct gtcggggaga 180
agaaggagac ccactaaaag caaaggcagc aagtctagtc gcagcagctc attgggcaat 240
aaaagcccac agctttcagg caacctgtct ggtcagagtg gaacttcagt cttacacccc 300
caacagaccc tccatcccgc aggaacaccc cccgactctc gag                                     343

```

<210> 33

<211> 599

<212> DNA

<213> Mus musculus

<400> 33

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gaattcggcc ttcattggcct actttcattg tgaaatcact ggtaaggaga aaacatctga 60
aatggaattc aagtatctgg tcttcattgt gcttgggtcaa tacctggaca atacgttttt 120
ctcagagaca gaagcaatta caacagagca gcaatcactg tctactttaa tcacaccgtc 180
gttatatgtt acaactgatt ctcaaaacac agcagggaat gctttgagtc agacaacaag 240
attcaagaac atttcttctg gacagcaagc atcacctgcc caaatcactc ctgaacaagc 300
aacaccagct gtttatgtct cttcaagccc acttacttat aacattacca gacaagcaga 360
atcagcggtc aacaactcct tgcctcaaac atcacatctt ggggttactt tgaccaatca 420
gccatcacct tctacctata attctactgg acaaccacca aaacatcttg tctatacttc 480
cacacaacag ccaccatcac ctgctcctac ctcttctggg aaaaccagaa gtagagtcta 540
ctcataatca gccccaaaaa tcaacaccaa ctatttattt acaaaggagc ggactcgag 599

```

<210> 34

<211> 363

<212> DNA

<213> Mus musculus

<400> 34
 gaattcggcc ttcattggcct acgttgctct cagagggtatt ggctcatctt ctggatatgg 60
 tttttctacag cgatgaaaaa gagcgtgtta tccctttact tgtaaacatt atgcattatg 120
 ttgtacccta cctccgaaat cacagtgcac ataatgcccc tagttaccga gcctgtgtcc 180
 agctgctcag tagtcttagt ggggtatcagt atacaaggag agcctggaaa aaagaagcct 240
 ttgacctttt tatggatccc agcttctttc agatggatgc ttcctgtgtt agtcaactgga 300
 gagcaatcat ggacaacctg atgacacatg ataagacaac cttcagagat ttgatgactc 360
 gag 363

<210> 35
 <211> 139
 <212> DNA
 <213> Mus musculus

<400> 35
 gatgcaccag ctccctgggccc tcaatctcct cttcctgcta tctcagaacc gagtggctga 60
 gtccacaca gaattagaac gattacctgc caaggacatc cagaccaatg tctacatcaa 120
 acacctgtt tccctcgag 139

<210> 36
 <211> 284
 <212> DNA
 <213> Mus musculus

<400> 36
 gaattcggcc ttcattggcct aggccgctct atttctgttc caagtgtttg cagggtttct 60
 tggttttttt tcttatttct tcaaccagct gtttgatgtg gtccctccatg aattctattt 120
 tctcattctt ccgggcatgg gctttctgta gcctcactat cctctcaatc agcatggctt 180
 tgtccacttc tgggaagtgt tccacagcca ccgaggagct ggtattctct ggagatcggg 240
 cttcagcact gattcgagca ttaagtgacc ctgatgaact cgag 284

<210> 37
 <211> 494
 <212> DNA
 <213> Mus musculus

<400> 37
 gaattcggcc ttcattggcct aagtttattg aggtattaaa tttactttgc agtggatatt 60
 tttaaatata cacctgagct gacgtgtttt taactgagtt tttttgtttt ttttttttaa 120
 tgctactcat ttggattgct ctttttaata actcttcttg tataggaatg aaatcaccag 180
 gagaacagct ggtgtgcctg ccaccagtgg aggcctttcc taatgatccc cgggtcatca 240
 atagagaaaag aagctgtgat taccagtccc caccctctcc gcctacagac accctaaaag 300
 ggactaccga ggaggacact gtaacagcag gtcaggcgat ggcagtggaa gagcagtgtg 360
 tgccagcagc agagcttctt agagtgagcg agattacaga aaatacagtg ttaggagagt 420
 tccatctttt ctctagggaag gtagaagaga ttttgaagga gaagaatgtt tcatatgtta 480
 gtgcaaatct cgag 494

<210> 38
 <211> 317
 <212> DNA
 <213> Mus musculus

<400> 38
 gaattcggcc ttcattggcct actcctatga cagcatctga aatatataat aattctctcc 60
 ttttagaata tctctgttgg ctcaaatagc tatttctaaa ttttcgtctt aatcgtttaa 120
 acttgtcagt tgtttttatt aaacttatgt tccatgtaca gtgctgccag gttcctgccc 180
 aggagtcagt cagaggagca tggcttttcc ttctgggttc attagctttg ctgttagcca 240
 acaccaacac tcatttcacg atggcttttg tccttgacca agtggtcccc tgtgccccag 300
 catcacaagc actcgag 317

<210> 39
 <211> 362
 <212> DNA
 <213> Mus musculus

<400> 39
 gaattcggcc ttcattggcct aaggaagtaa caattttgcc ttttctttgt gttcttttaa 60
 ctgcttatta gaatttcata tctaatttgt ctctgatttt ggaaaagcct ataaacaaag 120
 atttatcaga aaaaagtctc agaatttgtg aaaaaaata gtaaaagaaa aggggataga 180
 gacaaatgat tctcttttta ttaatttatt tttcacttt ataccctgat cgaagccctc 240
 ctctctccag tcccactccc cctagtccat ctctccagta ctctctgtct tctcagagaa 300
 ggggaagtct cctaggggta ccagtatgcc cagcaggggg atccaaaggc agtatactcg 360
 ag 362

<210> 40
 <211> 318
 <212> DNA
 <213> Mus musculus

<400> 40
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 taggtagcaa aaggaaatct aagaaagatg tttatacaat ctttgatgca gaggtggaga 120
 gcacaagtcc aaagtccgaa caggattcgg gaattctgga tgtggaagac gaggaagatg 180
 atgaagaggt acctggggct caagacttgg tggatttctc tctgtgttat cgggtgtctac 240
 acatatattc tgtctctgggt gccctgaaa catttgagaa ttactaccga aaacagaggc 300
 gaaaacaggc ccctcgag 318

<210> 41
 <211> 556
 <212> DNA
 <213> Mus musculus

<220>
 <221> unsure
 <222> (151)..(152)

<400> 41
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 aataaaactt tgtatatgtt cagcctgcag gagataacat tttagtcaaa aaaaaaaaaa 120
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa nnaaggaacc attttgacag caagaccttc 180
 tgtgaagttc taaaaaggga aaggatctgc gtgtgtcttg tcatttaaac acatatcag 240
 ttctgtgtac tctagagttt gacggctctgt atatttttca ggcagccaag ccaagttatt 300
 gtatcatttg ggtgtagaaa ctgtgttttc ctgtgtatat gtgatcaata tccaagggtc 360
 taaaagttag cttgcttgta ttggaattta aaacaacaac aacaaaaaga aatatgtcac 420
 tgtgttttca atttgatatt tcacaactgc ttccttttct atggctcctg ttcatatctc 480
 acagtgtgta gggatcatag agaacacgca gagccgcaag ctgtctgtca catccagctt 540
 ccgcagttca gtcgag 556

<210> 42
 <211> 304
 <212> DNA
 <213> Mus musculus

<400> 42
 gaattcggcc ttcattggcct aggttttctg ggctactacg atggcgatga gtttcgagtg 60
 gccgtggcag taccgcttcc cgcccttctt tacgttacag ccgaacgtgg acaccggga 120
 gaagcagctg gccgcctggg gctctctggg tctgtccttc tgccgcctgc acaaacagtc 180
 cagcatgacg gtgatggaag cccaggagag cccgcttttc aacaacgtca agctacagcg 240
 gaaacttctc gtggagtcaa ttcagattgt attagaagaa ctgagaaaga aagggaacct 300
 cgag 304

<210> 43
<211> 323
<212> DNA
<213> Mus musculus

<400> 43
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ccctctctctc cctctctctt ggggttgggg cagtgggaag gaggggacct cccatgcccc 120
aggatcccca gcgccagggg acagtgcccc gggggcctgg ggtcccggag ggagtccttg 180
gatctgaagg gcattcgatt gtgagcgccc aggcagaggc gcagaggcgg ctgtacacag 240
gctcagaaag gaaagacttg atgtcctcct gagggcagca gaggagcgcc gagccgcctg 300
tcacttcccc ctccacactc gag 323

<210> 44
<211> 322
<212> DNA
<213> Mus musculus

<400> 44
gaattcggcc ttcattggcct agattgaaat gcgcagtgtt tttgtttttt gttttgtttt 60
gttttgtttt gttttttcca aagcaaacgg aggtcaagag cttcatgcgt ctgaggagtt 120
tcctccgtca caggttttga tccagccatt tgatgtaact attcctagtc cggattccca 180
cggagaagtt ggtcggccag cttgtaaaaa tcatacaacc atggaagccg tcctcaaagt 240
gggtcaaggt cacgttcaca cccgcactct ccaagcgctt ggcgtacatg atcccatcgt 300
cccgcaggac gtcgtgctcg ag 322

<210> 45
<211> 451
<212> DNA
<213> Mus musculus

<400> 45
gaattcggcc ttcattggcct acatgctctc actagctcct ctctcagcc ttcttctcct 60
ctgtgtctct gattctaggg cagaaacaac tgtgaccag tctccagcat cctgtccgt 120
ggctacagga gaaaaagtca ctatcagatg cataaccagc actgatattg atgatgatat 180
gaactggtag cagcagaagc cagggggaacc tcctaagctc cttatttcag aaggcaatac 240
tcttctctct ggagtcctcc cccgattctc cagcagtggc tatggcacag attttgtttt 300
tacaattgaa aacacgctct cagaagatgt tgcagattac tactgtttgc aaagtataa 360
catgccgtac acgttcggag gggggaccaa gctggaaaata aaacgggctg atgctgcacc 420
aactgtatcc atcttccac caccactcga g 451

<210> 46
<211> 350
<212> DNA
<213> Mus musculus

<400> 46
gaattcggcc aaagaggcct agagctttca tatccacgat gcgttttctg gccgccacga 60
tcctgtctgt ggcgctggtc gctgccagcc aggcggagcc cctgcacttc aaggactgcg 120
gctctaaggt gggagttata aaggagggtga atgtgagccc atgtcccacc gatccctgtc 180
agctgcacaa aggccagtcc tacagtgtca acatcacctt taccagcggc actcagtccc 240
agaacagcac ggccttggtc cagggcatcc tggaagggat cgggtcccc ttccctatcc 300
ctgagcctga cggttgtaag agtggaaatca actgccccat caatgtcag 350

<210> 47
<211> 449
<212> DNA
<213> Mus musculus

<400> 47

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gcttcattggc ctacaaagac aaaatggatt ttcaagtga gattttcagc ttcctgctaa 60
tcagtgtctc agtcataatg tccagaggac aaattgttct ctcccagtct ccagcaatcc 120
tgctgtcatc tccaggggag aaggtcacaa tgacttgagc ggccagctca agtgtaagtt 180
acatgactcg gtaccagcag aagccaggat cctcccccaa accctggatt tatgccacat 240
ccaacctggc ttctggagtc cctgctcgct tcagtggcag tgggtctggg acctcttact 300
ctctcacaat cagcagagtg gaggtgaag atgctgccac ttattactgc cagcagtgga 360
gtagtaaccc gtggacgttc ggtggaggca ccaagctgga aatcaaacgg gctgatgctg 420
caccaactgt atccatcttc ccactcgag 449

```

<210> 48
 <211> 555
 <212> DNA
 <213> Mus musculus

```

<400> 48
gaattcaagt atctggctct cattgtgctt tgtcaatacc tggacaatac gtttttctca 60
gagacagaag caattacaac agagcagcaa tcactgtcta ctttaatac accgtcgta 120
tatgttacaa ctgattctca aaacacagca gggaaatgctt tgagtcagac aacaagattc 180
aagaacattt ctcttgga gcaagcatca cctgcccata tcaactcctga acaagcaaca 240
ccagctgttt atgtctcttc aacccactt acttataaca ttaccagaca agcagaatca 300
gggtcaaca actccttgcc tcaaacatca ccactgggt tcactttgac caatcagcca 360
tcaccttcta cctataatc tactggacaa ccacaaaac atcttgctta tacttccaca 420
caacagccac atcacctgc tcctacctct tctggaaaac cagaagtaga gtctactcat 480
aatcagccca caaatcaac accaactatt tatttataaa gggacacacc accaccacca 540
ccacccaac tcgag 555

```

<210> 49
 <211> 328
 <212> DNA
 <213> Mus musculus

```

<400> 49
gaattcgcc ttcattggcct acatgtctc actagctcct ctctcagcc ttcttctct 60
ctgtgtctct gattctaggc cagaaacaac tgtgaccag tctccagcat ccctgtcgt 120
ggctacagga gaaaaagtca ctatcagatg cataaccagc actgatattg atgatgat 180
gaactggtac cagcagaagc caggggaacc tcctaagctc cttatttcag aaggcaatac 240
tcttcgtcct ggagtcctat cccgattctc cagcagtggt tatggcacag attttgttt 300
tacaattgaa aacacgctct ctctcgag 328

```

<210> 50
 <211> 304
 <212> DNA
 <213> Mus musculus

<220>
 <221> unsure
 <222> (143)

```

<400> 50
gactctaaag atgaaatgta aattccctggg tagcttcttt ctgctcttca gcctttccgg 60
caaagggcg gactgcagag acaatgagac catctgggt gtcttgggtc atggcatcac 120
cctgaacatc cccaacttct aantgactga tgatattgat gaggtgcgat gggtaggag 180
gggcaccctg gtcgcagagt ttaaaaggaa gaagccacct tttttgatat cagaaacgta 240
tgaggtctta gcaaacggat ccctgaagat aaagaagccg atgatgagaa acgacatcct 300
cgag 304

```

<210> 51
 <211> 436
 <212> DNA
 <213> Mus musculus

<400> 51

```

gaattcggcc ttcatgccta aaaataattg gtccctgcct gagctagtgc acgccgtggt 60
cctcttggtc cactatcacg ctttgccag ctttgttttt ggtagtggca tcaatccaga 120
gagagaccca ggaatcgcca atgggttcag actaatctct gtgagcagct tctgtgtgtg 180
tgacctggcc aatgacaaca gcatcgagaa cacctccctg gcgggcagca actttgggat 240
tgtggattcc ctaggcgagc tggaagcctt aatggaaagg atgaaaaggc ttcaggaaga 300
cagggaagat gacgagacca ctcggaaga aatgaccacg cgttttgaga aggaaaagaa 360
agaaagtctc tttgtggtcc ctggagaaac tttacatgcg tttcctcact cagattttga 420
agatgatgtt ctcgag                                     436

```

<210> 52

<211> 285

<212> DNA

<213> Mus musculus

<400> 52

```

gaattcggcc ttcatggcct acggctagga agggcataga tttttagaga tgggctagtt 60
gggttccgaa cctggctgca taattttatc ggggtggaat ttaggcggat cgcattttta 120
atgcctgaaa atgggcacag cagtgtgtgt taacattgaa tctgagatgt cacctaggga 180
aagacacatt cgcatttgaa agatagtctg taggaaagaa aacaagccat ggtcatgggc 240
aagtgcctcc cccgaagagt tatgttaaag atgaaatggc tcgag                                     285

```

<210> 53

<211> 448

<212> DNA

<213> Mus musculus

<400> 53

```

gaattcggcc ttcatgccta gggagacacg gaagagacaa attttgatct ttttaaataat 60
gctcttagtt tctagagtct ttgggtttcg atgggtttcct aaaactctac cttgtgaagt 120
taaagtaa atcccagagg cccatgtgat cgtggactgc acagacaagc atttgacaga 180
aatccctgag ggcattccca ctaacaccac caatcttacc cttaccatca accacatacc 240
aagcatctct ccagattcct tccgtaggct gaaccatctg gaagaaatcg atttaagatg 300
caattgtgta cctgttctac tggggtccaa agccaatgtg tgtaccaaga ggctgcagat 360
tagacctgga agcttttagt gactctctga cttaaaagcc ctttacctgg atggaaacca 420
acttctggag ataccacag gactcgag                                     448

```

<210> 54

<211> 449

<212> DNA

<213> Mus musculus

<400> 54

```

gaattcggcc ttcatgccta gggagacacg gaagagacaa attttgatct ttttaaataat 60
gctcttagtt tctagagtct ttgggtttcg atgggtttcct aaaactctac cttgtgaagt 120
taaagtaa atcccagagg cccatgtgat cgtggactgc acagacaagc atttgacaga 180
aatccctgag ggcattccca ctaacaccac caatcttacc cttaccatca accacatacc 240
aagcatctct ccagattcct tccgtaggct gaaccatctg gaagaaatcg atttaagatg 300
caattgtgta cctgttctac tggggtccaa agccaatgtg tgtaccaaga ggctgcagat 360
tagacctgga agctttaagt ggactctctg acttaaaagc ctttacctg gatggaaacc 420
aacttctgga gataccacag ggactcgag                                     449

```

<210> 55

<211> 476

<212> DNA

<213> Mus musculus

<400> 55

```

gaattcggcc ttcatggcct agccggggcc ttcatgagac tctccagctg aagccatctc 60
ctgcttggga gccagtgtc cattttctgt cgtggcatca tcatcacagt gcctcagaga 120

```

```

gtggagttcc caggatgccc acttgagctg gttctctaca gcatccagct cagaactcgg 180
taatccctga gcatcttctt gagatgttat ctctcttaca agcacttccc gtttctgceg 240
acggagagaa accggctgac cagggtcatc aagctcactc tccaagtcct ctagaacagc 300
cactgcctcc tctccattct ctgggtgatg ctctcgaacc caagtctgta gtccttggg 360
taggatggca acaactgct ccaaaactac cagctccagt atctgctcct ttgtgtgtgt 420
ctctggtctg agccacaggc ggcaaagttc tcggagctgg ctcaccgct ctcgag 476

```

<210> 56
 <211> 393
 <212> DNA
 <213> Mus musculus

<220>
 <221> unsure
 <222> (57) .. (58)

<220>
 <221> unsure
 <222> (226)

```

<400> 56
gaattcggcc ttcatggcct atgcagattt aatggaacta gggaaatcct tatccanntc 60
caaaacctca ttaacttctc taaggagggc tcacccttcg aaatcagcgg gaacaagact 120
tccaatctct gcaacaggat ggactgtgta aacctctgga gaaaagggtg tgcacctttg 180
tggataactt aaagcatgcg agggagtatt tgcctaaggt gaggcnacgt ctagaagaca 240
ggccaaaggg aaatgggaca gggtcagcct gtgtggatta cagttattgc aactctgtct 300
ggattcttgg gcctggtcct actcattgtg atatgcaagc tctatgttgt taacccctg 360
atggattcat caaggaccag gtcaccactc gag 393

```

<210> 57
 <211> 484
 <212> DNA
 <213> Mus musculus

```

<400> 57
gaattcggcc ttcatggcct ataggccatg aaggccggcc ttcatggcct aagtctctcc 60
ccctttactc cctcccacct ttttccagac ctgcccctct cttagaaaag aacagtcctc 120
ctcctgggg acatgaatgg aatatgctat aacaagctat agtaagacca ggcacacatt 180
ctcacatcaa ggctagacca ggaggcaaaag cattccaaag gcaccagatg actcaggggac 240
agcctgtgct cccactgtta gcaccctaca agaaccacaa gctatacaac cgtaacatac 300
atgcagtgtc cagacacata taggctcacc atcacaagaa catggcccac agaatactct 360
gaggcacatt ttacctaaac gttggtacag atgacttggg cagtgtcttt tggtagatat 420
tgaagacaca aagatgcatg ctctctctcc acccttaccg attgaattct agacctgct 480
cgag 484

```

<210> 58
 <211> 554
 <212> DNA
 <213> Mus musculus

```

<400> 58
gaattcggcc ttcatggcct actataagtt aagcttcttc agcgggatgc tgctgtcct 60
atgcatcagc attgaccgct acgtagccat cgtccaggcc gtgtcggctc atcgccaccg 120
cgcccgctg cttctcatca gcaagctgtc ctgtgtgggc atctggatgc tggccctctt 180
cctctccatc cggagctgc tctacagcgg cctccagaag aacagcggcg aggacacgt 240
gagatgctca ctggtcagtg cccaagtggg ggccttgatc accatccaag tggccagat 300
ggtttttggg ttctagtgc ctatgtggc tatgagttct gctactcatt atcatccgta 360
ccttgctcca ggcacgcaac tttgagcggg acaaggccat caaggatgac attgccgtgg 420
tggtagctct catagtcttc cagctgccc acaatggggg ggtcctggct cagacgggtg 480
ccaacttcaa catcaccaat agcagctgcg aaaccagcaa gcagctcaac attgcctatg 540

```

acgtacacct cgag

554

<210> 59

<211> 322

<212> DNA

<213> Mus musculus

<400> 59

```

gaattcggcc ttcattggcct agattgaaat ggcagtggt tttgtttttt gttttgtttt 60
gttttgtttt gttttttcca aagcaaacgg aggtcaagag ctccatgcgt ctgaggagtt 120
tcctccgtca cagggtttga tccagccatt tgatgtaact attcctagtc cggattccca 180
cggagaagtt ggtcggccag cttgtaaaaa tcatacaacc atggaagccg tcctcaaagt 240
ggtccaaggt cactgttaca cccgcactct ccaagegctt ggcgtacatg atcccatcgt 300
cccgcaggac gtcgtgctcg ag                                     322

```

<210> 60

<211> 390

<212> DNA

<213> Mus musculus

<400> 60

```

gaattcggcc ttcattggcct agctgtagat gtttcttcta gagcacctat ttttctgtcc 60
tcccctcata ctttttttaa aactttaaaa aagtgcattg gtgtttgcct gcatgaatgt 120
ctgtgctcca tttgcatgat tgggtgctct ggaaggcgga agaagggtgc agacctcctg 180
gaattgaaat ttagacacgt tgtgatctgc catgtgggtg ctgggaatca aacctgggtc 240
ctatgaaagg tatccagtgt tcttattctt aactgctgaa ctatatcttc agccgtcctc 300
ccacactgtt ttagtgagat gatggaataa ggaagatttg ttgctctgtt ttgttttgtt 360
ttgttttgtt ttcctagtgc gggactcgag                                     390

```

<210> 61

<211> 483

<212> DNA

<213> Mus musculus

<400> 61

```

gaattcggct tcatggccta catgctgatg ctcatgctcc tgatgatgtt cgcgggccac 60
tgcacgtggg tcacaagcaa cgcctactcc agtccaagtg tggctcctgc ctccataaat 120
catgatggta ccaggaatat attagatgat ttagagaag cgtacttttg gctgagacaa 180
aacacgggat aacacgcccg ggtcatgtcg tgggtgggact acggctatca gattgctggc 240
atggccaaca ggaccactct ggtggataac aacacctgga acaacagcca catcgactg 300
gtcggaaaag ctatgtcttc caatgaaacg gccgcctata aaatcatgag gtcccttgat 360
gtcgattatg tgttggttat tttcggagga gtgattggct attccgggga cgatatcaac 420
aagttcctct ggtgggtcag gatagctgaa ggggagcctc ccaaagacat ccggcagctc 480
gag                                     483

```

<210> 62

<211> 189

<212> DNA

<213> Mus musculus

<400> 62

```

gaattcggcc ttcattggcct agggcggttg taagaaatgc tgttcctact cactccaaag 60
aacctgggtc acttaataca tgccaccctt ttcttagtgt attcatttat tttccacgc 120
gtgatgggat tctataacct gcaaaccaat cctaagagaa gcttggcaag ggatgaggaa 180
aaactcgag                                     189

```

<210> 63

<211> 456

<212> DNA

<213> Mus musculus

<400> 63

```

gaattcggcc ttcattggcct aagcttcgga ataataattt tggcaaatct atcttctgaa 60
ccactcattt ctgtggtctt aatggctcca atttggggac caataatgtt cattgtctca 120
ggatccctgt caattgcagc aggagtgaac cctacaaaaa gcctgatcat cagcagtcta 180
actctgaaca ctatcacctc tgtgttggtt gcaactgcaa gcataatggg tgtagtcagt 240
gtggctgtgg gttcacagtt tccgtttcgg tataattata caatcaccaa gggtttggat 300
atcttgatgt taatttttaa tatgctagaa ttctgcattg ctgtgtccat ctctgctttt 360
ggatgtaaa gttctctgtt taactccagc gaggttcttg tagtgctacc atcaaattct 420
gctgtgactg tgatggcacc cctgtgtca ctcgag 456

```

<210> 64

<211> 330

<212> DNA

<213> Mus musculus

<400> 64

```

gaattcgcct tcatggccta cctgettaga cacgcttgtg ctgaaggcct tgcccttget 60
caccagtag gttttcagga tcaactccgt cagcagcttc ctcttctga gctcattccg 120
ttccttttca gccagcttct cagcctggcc tgccctggacc agctgcaacc gcttctgcac 180
ttcatctct atactgtcca ccaactcgaa caccggggc cgtcggcgg cactcttctc 240
cactcggatc cacttgttgg acatggcctt gctgaagccc accttgccgc tgggcagggtg 300
catgagctca ctctgcacca ggccctcgag 330

```

<210> 65

<211> 358

<212> DNA

<213> Mus musculus

<400> 65

```

gaattcggcc ttcattggcct acaagaagga cgagcccaag agcagcagag aggcgctcat 60
cgtccctccg gatgccgttg cgggtgattg caaggaccgc ggtgacgttg ttccggttgg 120
acagaggaga gcgtggtgtt ggtgcatgtg ttccggactg gccttcatgc ttgctggcgt 180
catcctcgga ggggcgtacc tgtacaagta ttttgcctct cagccagatg atgtgtacta 240
ctgtggacta aagtacatca aagatgacgt catcctgaac gagccttctg cggatgcccc 300
agctgctcgc taccagacaa ttgaagagaa cattaagatc tttgagcaag aactcgag 358

```

<210> 66

<211> 451

<212> DNA

<213> Mus musculus

<400> 66

```

gaattcggcc ttcattggcct accagatctt cgggagcatc aaactcagt acagcctgag 60
cgctgcgcag aagaacaagg tgaagcgctc cgccatcgcg gtcgtcacca tcttcttggt 120
ctgcttttct cctaccacg tggtaactct cgtcaaagct gccagctttt ctttctacca 180
aggagacatg gatgccgtgt gtgcctttga aagcagactg tacacagtct ctatggtgtt 240
tctgtgcctg tctacagtca acagtgtggc tgaccccatc atctacgtgc tgggtacaga 300
ccactctcgg caagaagtgt ccagaatcca cacagggtgg aaaaagtgtt ccacaaagac 360
atatgttaca tgctcaaagg actctgagga gacacacttg cccacagagc tttcaaacac 420
atacaccttc cccaatccca cgcattctga g 451

```

<210> 67

<211> 349

<212> DNA

<213> Mus musculus

<400> 67

```

gaattcggcc ttcattggcct acacaatgtc gggctcctcc cgccgactgc tctgggcccgc 60
cacctgcctc gccgtgctct gcgtctcggc cgcgcagccc aacatcacca ccttggtctc 120
caacgtgacc gaggtgccga ccacgaccac caaagtgtgc ccgacgacgc aaatgcccac 180

```

cgtagctacca gaaacctgtg cgagcttcaa cagctgtgtt tcctgtgtta atgccacctt 240
 tactaataat attacctgct tttggttaca ttgccaagaa gcaaataaga cctattgtgc 300
 aatgaacca ttaagtaatt gttcccaggt gaaccgcact actctcgag 349

<210> 68
 <211> 304
 <212> DNA
 <213> Mus musculus

<400> 68
 gaattcggcc ttcatggcct agtttgacct ggctggaata acgtgtgggc acttccttga 60
 acctttcttg accctctttg gtgcaacctt gattgggaaa gcaatcatta aaatgcata 120
 ccagaaaata tttgttatag taactttcag caagcacatc gtggagcaga tggtagcttt 180
 cattgggtgct gtccccggca taggtccgct tctgcagaag ccttttcaag agtacctgga 240
 ggcgcagcgg cagaagcttc atcacagaag tgaagcgggc acaccgcagg gagaaactct 300
 cgag 304

<210> 69
 <211> 646
 <212> DNA
 <213> Mus musculus

<400> 69
 gaattcggcc ttcatggcct agctagttaa taggtgttta ttaaagatgc agattttaat 60
 tagttaccca gtttgacctt aatcatacat atagtttatt gattcagttt gtgatttttg 120
 ttttatgttc ttatgatggc ttataataga ttttttgaga tcagttttaa ttcctccttt 180
 tgaaataact gggatattta atttaaagtt tcttttttaa aataattatg tgcagtgtct 240
 cactattgat gtgctggac aaagctggct atgagtgcga cgggaaacac agtagtgtcc 300
 tgaagtgcct ggctgacctg cgtactgtat tttagaattc agacattgtc catgatcaga 360
 agtccctgaa gacggcactt cccagtaatc actccagagt gctcagtggg tgtccccctgc 420
 gcgtctacac tcctggcttc ttgagtagaa ggcacaaacc tttattccct ttctagctct 480
 ggctcttgga acctcatgaa gagttgacac cttttgcgtt gctccgttgc cagcccccat 540
 cgttctact gtcttgctgt gcctagagca gtggcaggcc aggcgtccag gctgcttcca 600
 cccactgcag gcacctaga gagggagctg ggagaagcag ctcgag 646

<210> 70
 <211> 304
 <212> DNA
 <213> Mus musculus

<400> 70
 gaattcggcc ttcatggcct acaaaacctt tccccaaagag cccatgtata gaccagatt 60
 tgctatgcaa atagtccaga ttcagttatg gctgggtaca ttattcagta acttcccaac 120
 aggtagcaca aatattcctt atggaaaaag cccaggactg ttcagtagtt cctcctgtac 180
 tttctgctg gctacagtat ggagtgcctc atgggcacag gccagccgg agaacagaa 240
 ggagggtctt gggaagaggc agctcactgg agagcctaca ttccttacac aagtgccact 300
 cgag 304

<210> 71
 <211> 474
 <212> DNA
 <213> Mus musculus

<220>
 <221> unsure
 <222> (20)

<400> 71
 gaattcggcc aaagaggccn acgaagattg ccaagatttt agagatgtat ttgtcaaaga 60
 ttctgtcga tccatgccct gtgggtgaca gtgtcctctg tgatgcagcc ctaccttttc 120

```

gtgtggggac attatgatgt atgtaagagc ctgatttaca cagaagaagg caaagtttgg 180
gattacacag cctgccagcc ggaatccacg gacatgacca agtatctgaa agtgaaactg 240
gaccctccgg atattacctg tggagaccct ccagagtcct tctgtgcaat gggcaaccct 300
tacatgtgca ataatgagtg tgatgcgagt acccctgaac tggcacaccc tccctgagctg 360
atgttttgatt ttgaagggaag acatccctcc acattttggc agtctgctac ttggaaggag 420
taccctcaaac ctctccaggt taacatcact ctgtcttggg gcaaaaccct cgag 474

```

```

<210> 72
<211> 536
<212> DNA
<213> Mus musculus

```

```

<400> 72
gaattcggcc aaagaggcct acttgatcct tgtgcctcag cttcccaagt tctaagataa 60
cagacatggt ccatcatgcg cagttccttt ctttgctata gtatatatcc tcatcatgta 120
cacataatgc tatctgtgat ggtttatata tgcttggtc agggagtggc actgttatga 180
ggtgtaacct ctttcaacaa ggtgataaag atgaaatggg gtattactgt gctcactgga 240
cacactgttc agccccatc tcaccgtaac catgggaaca ctgacagact ttctgtggtc 300
tcctctgcaa aggctgtgcc cagttttgtt atcgggctat tggtttaagg tccacacctc 360
agctcataga gctgtcacca ctgcctacat gtgatactgt aaacccatct cctacggaac 420
cagagaagtt gagagaccac agagagtgtc tggtagctga ctgagtatac tggacatctg 480
tgtcaaatg caaaaacaat gaagatgagc cacctggagc caggagcat ctcgag 536

```

```

<210> 73
<211> 384
<212> DNA
<213> Mus musculus

```

```

<220>
<221> unsure
<222> (31)

```

```

<220>
<221> unsure
<222> (100)

```

```

<220>
<221> unsure
<222> (103)

```

```

<220>
<221> unsure
<222> (138)

```

```

<400> 73
gaattcggcg aaagaggcct agacgccttg nagtccgtc tgccatcctt taaaccgcag 60
acctaacttc ataaaaagaa aaaaaaagga aaaaaaaan ggnaaaaaaa aaaaaaaagc 120
caagttaacc tgggaattntt tttttgtaca tttagggcca cagggaatac attgtttcaa 180
taccaaagtg tttggttcat ttttgagaag ctggaagcct gctctcatgc tcaccactag 240
ctttatcccc agcaaaactc ctctccagac aggcagccgc attctcagca tggggaaccg 300
gtgggggtgc acgggggtgc tatgctgttt ctataaagac tgcacacacg caatcgtgtg 360
tggcattttt ttggtaaaact cgag 384

```

```

<210> 74
<211> 422
<212> DNA
<213> Mus musculus

```

```

<400> 74
gaattcggcc aaagaggcct actaccttca taaacattta gattgtctgt gactcagcta 60

```

```

ggatgatata tgccttacct gcatttagcc aggtagttta acctaagaga agaccttggt 120
taaaactaaa gatttaagta tgtacgcac agatgtttta ggattgcagt tgacaatttc 180
tgtaacctag gccttcagaa gttagaactg cagttgacgg acggaagctt gagggttttc 240
tgagatggac tacatttctt catttccatg tctaattgtt gttctctaag atgtcctctg 300
ctttcaaata ttggctccta tattgagtgg tagtctcagg aggtagaggc aggaggatct 360
cttgagtttg cccccaacct tagtctacag agcaagttcc aggatatctc gaggttctcg 420
ag 422

```

<210> 75
 <211> 388
 <212> DNA
 <213> Mus musculus

```

<400> 75
gaattcggcc aaagaggcct acaatccaca aggggtccttt cttccgagtc agggaggaag 60
ctatcctgtg gattctcata gacaccaga ccacttcatt caccctctt tctcccatgc 120
tggggctcag acctaggaca gcatgtattc taggcaagca ttcaaccact gagctaaatc 180
tcctgccatc cttctaataa caggaggagaa gggagaaata gtccaggaaa ccgggtatct 240
atcacgtggt tggcttactt caacgcttag aagtttgagg tgtaggattc agtagttatt 300
ttctagggtt ggtgactgag gtccagaagg cttaaatgac cagggttaca caggcaggaa 360
gaggcacaca aatacactgg cactcgag 388

```

<210> 76
 <211> 525
 <212> DNA
 <213> Mus musculus

<220>
 <221> unsure
 <222> (493)

```

<400> 76
gaattcggcc aaagaggcct acacagattt ctcttggagt cagttggtcc cagaaagatc 60
caaattatga gactgtcagc aagaattatt tggcttatat tatggactgt ttgtgcagca 120
gaagattgta aaggctctcc tccaagagaa aattcagaaa ttctctcagg ctctgtgtca 180
gaacaactat atccagaagg caccaggtt acctacaaat gccgccttgg ataccgaaac 240
cttggcacta ttgtaaaagt atgcaagaat ggaaaatggg tggcgtctaa cccatccagg 300
atatgtcggg aaaagccttg tgggcatccc ggagacacac cctttgggtc ctttaggctg 360
gcagttggat ctcaatttga gtttgggtgca aagggtgttt atacctgtga tgatgggtat 420
caactattag gtgaaattga ttaccgtgaa tgtggtgcag atgggtggat caatgatatt 480
ccactatgtg aanttgtgaa gtgtctacct gtgacagaac tcgag 525

```

<210> 77
 <211> 263
 <212> DNA
 <213> Mus musculus

```

<400> 77
gaattcggcc aaagaggcct atgcattttc agttaatttt tggagagtgc atatgtatac 60
acattaatcg tctgtatact ccatactatt aatcttttag ctctatttat tttccaaag 120
tcagactgtc ttgatagcaa tatagttagt tttaaagtca gctagtacaa gaattctaga 180
tgtattctcc ttcttttcta ttatattggc tatttttggg actcctgtct gcttccttca 240
ttgtatctcc aacacatctc gag 263

```

<210> 78
 <211> 437
 <212> DNA
 <213> Mus musculus

<400> 78

```

gaattcggcc aaagaggcct agaaagatgt atcatggaat gaacccgagc aatggagatg 60
gatttctaga gcagcagctg cagcaacagc agcctcagtc cccccagaga ctcttgccg 120
tgatcctgtg gtttcaactg gcgctgtgct ttggccctgc acagctcacg ggtgggttcg 180
atgacctcaa cgtgtgtgct gaccagggc tcccagagaa tggcttcagc acccccagcg 240
gaggagtttt cttcgaaagc tcagtaaccc gatttcaactg ccaagacgga ttcaggctga 300
agggctctac aaagaggctg tgtatgaaac attttaatgg gaccctaggc tgggtcccaa 360
gtgacaaacc tgtctgcata caagaagact gccgcatccc ccaaattgaa gatgctgaga 420
ttcgaaacaa cctcgag 437

```

<210> 79
 <211> 456
 <212> DNA
 <213> Mus musculus

```

<400> 79
gggggtcggt atcattgctt ggctgttatt attaccgttg ttattttatt tttatttttt 60
aaacctaagg gagaaagaca catacacaca aaactgtggg atttatttaa catgatcttg 120
gcaaacgcct tctgcctctt cttcttttta gacgaaaccc tccgctcttt ggccagccct 180
tcctctccgc agggctctga gctccacggc tggcgccccc aagtggactg tgtccgggccc 240
aatgagctgt gtgcggctga atccaactgc agctccaggc accgcaccct tcggcagtg 300
ctggcaggcg gggatcgcaa taccatgctg gccataaagg agtgccaggc ggccctggag 360
gtcttgcagg aaagcccatt gtatgactgc cgctgcaagc ggggcatgaa gaaggagctg 420
cagtgtctgc agatctattg gagcatctac ctcgag 456

```

<210> 80
 <211> 574
 <212> DNA
 <213> Mus musculus

```

<400> 80
gaattcggcc aaagaggcct acagtgatct agtgatgtca tccagtatga tccatctgtt 60
gtcctctgtc atcccagca cccattttga ctcatcttct tcttgactg caaatcaaaa 120
cagtcacatc tttccagctg gaaagccaag ccttctcacc tctcccagtc tgggtccctc 180
agcacagtct agcgctttct ctcacggagc acctaccagc tctctggaac tccagtctgg 240
aagtcgtttg gatttcacat cgggtcttta ctccactccg cccctggact tcagcactcc 300
agccccctca cggtcagacg agcttgcttt cccatctttg atgtcaagcg atccatcaac 360
cttcttttct caaacttttt ccaccatggc tgagacattt tcaactgtcca actctatgaa 420
tttgcaatca cctcagcttt ctgttcttaa tcccacaagt ctagagccgt ctcagccaca 480
gtcaagtgca gaccttcttt tgaacacagt cactgttctt cctagtcccc ccgagaggcc 540
cccatcttca agctccccct ctgactctct cgag 574

```

<210> 81
 <211> 384
 <212> DNA
 <213> Mus musculus

```

<400> 81
gaattcggcc aaagaggcct gcctatggct attcctgacc cttcaccctt caccttgatg 60
cagccagtag ctggatcctt gaggtcacgt tgcatacgg tttcaaggta accatggtgc 120
caaggctctg tgggttgacac cagaaaaggc catcaatttt ccccttgcc tgaatttaac 180
attaaaacca tagctaagat gttttataca tagcacctat gcagagtaaa caaaccagta 240
tgggtatagt atgtttgata ccagtgtctg gtgggaatgt aggaagtcgg atgaaaagca 300
agccttttga ggaagtgtt ggggtgggat tgcaaaaatt ctctgctaag actttttcag 360
gtggacataa cagacatact cgag 384

```

<210> 82
 <211> 535
 <212> DNA
 <213> Mus musculus

<400> 82
gaattcggcc aaagaggcct aggaaccatt aaagcacatt ggaaaaggag caggtgaatt 60
cattaaagcg ctcatgaagg agattccagt gttacttcag attccggtgc tggcgatcct 120
ggcgctggct gtccctgagct tctgctatgg tgctggaagg tcagttccta tgctgagaca 180
cttcggtggc cctgacagag aacctccccg agcacttgag ccagatgaca gaagacgaca 240
gaagggactt gactatagac tccatgggtg agcaggtgat ccagatttct cttacagggg 300
cccagctggc tccatcgagc aaggccctta tgacaaaatg catgcgagta agagagatgc 360
tttgagacag agatttctact ctggcaacaa gagccctgaa gtgctccggg catttgactt 420
acctgacaca gaggcacaag aacatccaga agtgggtccc agccataaat caccattat 480
gaacacaaac cttgagactg gtgaactccc aggagaaagc accccggaac tcgag 535

<210> 83
<211> 430
<212> DNA
<213> Mus musculus

<400> 83
gaattcggcc aaagaggcct aaatcataaa tatctgtatg ctattgaaat ttaactttgt 60
atgatgctta aaccactatt tggggaaata ataaaaataag tctttaccat gtatgaaaga 120
aattttaaaa aatacaaaat attttctgat tagcatctag cttataataa attttcaaaa 180
aagctgaagg caactgtggc ctccatcagg atgcactgag aactatatag ttacgtcctg 240
cgtttttgat aaactgagat gctcatgtgc tcccccttag aacaggcaat gtgctatgca 300
taacatagtt gtacattatc tttgcagttg ctttgagttt tattttttat tatttaaaac 360
tgtagttata aaaattttca gtatagtaca gtacatatac tgtgaggcgc gattctagac 420
ctgcctcgag 430

<210> 84
<211> 528
<212> DNA
<213> Mus musculus

<400> 84
gaattcggcc aaagaggcct atgcagcttg taatggtttc gagaatggta atgaagatta 60
tgctaggttag aaaacactac aaaagcagat gtgtggaatc ttttcctttt cctagacttt 120
gtattttatt aaaggcaaac aaaacctaga gtatcccgct atttttagtc tagatctgta 180
gcaactataa tctgaaagag aaacttgttt aaaaaaaaaa caaacactgt gaaccccaac 240
aggcctggag gatcaagaat cagagacata gttgattttt taggcttttg cctgcagcgc 300
ttctcattgt tagcctcagt ttcccccaaa ggtcagacaa gtactagcaa tttccagac 360
aacctcactg atttttagca accaaggagc aagtacttgc tctagaatca atgttggttaa 420
tggtcaacag ctcatcgccc gtgctgcgca tcttaacgta gagccagtgt gagttcaggg 480
ccagcactgt cttccagca gacctttctg attgcgcgca gtctcgag 528

<210> 85
<211> 144
<212> DNA
<213> Mus musculus

<400> 85
gaattcggcc aaagaggcct aattgaattc tagacctgcc tcgagtgttt tctttgactg 60
acttaaaata cttctatgat ttttttttct cttctagttt tccctgtgat gtgtgccagt 120
gtgaattgta tgggtgtact cgag 144

<210> 86
<211> 379
<212> DNA
<213> Mus musculus

<400> 86
gaattcggcc aaagaggcct actttggttg tttcgctacc tgtcagacct ccgcctggat 60
gctgaaactg tacgcgatgt ttctgacact catttttttg gtcgaactag ttgccgccat 120

```

tgttggattt gttttcagac atgagattaa gaacagcttt aaaagtaact atgaaaacgc 180
tctgaaggag tacaactcca caggagacta tagaagttaa gctgtagaca agatccaaag 240
tacgttgcat tgttgcggtg tcaccaatta cggagattgg aaaggtagca actattactc 300
agaaacagga ttccaaga gctgctgtaa actggagggc tgttatccac agagagatgc 360
agataaagtg caactcgag                                     379

```

```

<210> 87
<211> 441
<212> DNA
<213> Mus musculus

```

```

<220>
<221> unsure
<222> (60)..(61)

```

```

<220>
<221> unsure
<222> (136)

```

```

<220>
<221> unsure
<222> (151)

```

```

<400> 87
gaattcggcc aaagaggcct actaacttcc atttctacct tatgtcctca aaatgcatgn 60
ntgtgatctg aaagaagcat ccagaaaaac tgttcatttc ctgagtagcc aagttagaac 120
aaataaatga tacacnaaga aaactgattt naattctgga caagaacctg tgaatgtttt 180
cttttgaagg aatgtggaag acataaggac tgagatggca aaggcataga aacctgtaca 240
cagatcttca tctactgttc ttgtaggacc tggtaggtac cactgttttag actattatgg 300
gcagagtaag gtgaggtcat aggatttcaa ggggaaatag tgatatgaaa aaatttagct 360
agaggtcatg tgtgatagtt tggccacaaa tgtttttcat tctatccatg acctctgaaa 420
ttgaggaagc aggatctcga g                                     441

```

```

<210> 88
<211> 372
<212> DNA
<213> Mus musculus

```

```

<400> 88
gaattcggcc aaagaggcct aggaagatga acaaacgaca gctctactac cagggttttaa 60
actttgccat gatcgtgtct tctgcgctca tgatctggaa aggcctgatt gttctcacgg 120
gcagcgagag tcccatcgtg gaggtactca gtggcagtat ggagccggcc ttccacagag 180
gagatctgct gttcctcacg aatttccggg aggaccccat cagagctggt gaaatagttg 240
tttttaaggt tgaaggaaga gacattccga tagttcacag agtaatcaag gtttcatgaa 300
aaagataatg gtgacatcaa gtttctgact aaaggagata ataatgaagt cgatgataga 360
ggcagcctcg ag                                     372

```

```

<210> 89
<211> 436
<212> DNA
<213> Mus musculus

```

```

<220>
<221> unsure
<222> (354)

```

```

<400> 89
ctcaggagatg tcctttcttgc cttcttcttc ctcactcagcc ttctcatgct ccagagactc 60
gatgcgagat gcatttttct ctggctcaat aatcaacgtt tccttgtttt taaaagcctt 120
ctgtgggttga ttgttttcca tatttgcgtg ggactcgaac agtggagatt tcttatcccg 180

```

```

cttctcacta tggagcagag tttgtttttt ttgcaactct tctagatata ccaaaatgtc 240
ttcatctgct acatcaaaagg ctgttttgcc cacttttggt accgtctcca tatcacacag 300
attgtccact aaaatccgac atgcttcctt taccccaatg agctgcagca tgangagggtg 360
tccagccatc ataattctta atattaacat catagcctgc ctgtattaaa agtttttaggg 420
ctctttgggc gaattc 436

```

<210> 90
 <211> 373
 <212> DNA
 <213> Mus musculus

<220>
 <221> unsure
 <222> (12)

```

<400> 90
gaattcggcc anagaggcct actttctgaa gacaaaagct aagatgaagg acacgccact 60
ccaagtccat gtgctacttg gcctagctat cactacacta gtacaagcta tagataaaaa 120
agtggattgc cccaattat gtacctgtga gatcaggcct tggtttacct cgagatccat 180
ctatatggaa gcatcgacag tggactgtaa tgatttaggg cttttaaaact tcccagccag 240
attgcctgcc gacacacaga ttctgctcct acagactaac aatattgcaa gaattgaaca 300
ttccacagac ttcccagtgga acctgactgg cctggactta tctcaaaaca atttatcaac 360
agtcacactc gag 373

```

<210> 91
 <211> 306
 <212> DNA
 <213> Mus musculus

```

<400> 91
gaattcggcc aaagaggcct agaagtagaa agctgccatt tgtttaagag aaaataccga 60
aaccttactt aacagtgtat aatgtttata aaggaagttt gtaataggaa cttggcaggt 120
ttgattggta ggtaccatac tgagggcagc cttctatagc acatctctcc aatgtgattt 180
gtggacattc aaagcctgct tggttccctg caggaccaca catgctgctg cactcactcc 240
tggactgtag aagtaaatac cttaatgctt tatcatttga cattctaacc aaggaaaaag 300
gtcgag 306

```

<210> 92
 <211> 344
 <212> DNA
 <213> Mus musculus

```

<400> 92
gaattcggca aagaggccta ctctccccc cccctctctc tctctctcgc atactaacta 60
ggtttgactg tattactcgt accagattta aaattagact agccttgcca caacgcccta 120
ctgagaggta ctgtcgaact gtagacagca tgatgttctt tgatggtgaa agtctaaatc 180
tggaccgtgt tcagagatac caaatgatga ggctgaaaag gggaaaaggg gttcttcagt 240
ctcttcttct tcttcttttt attttttttt ccatgatgtt ttctctatgg ccagtgc aaa 300
tgggtgtgtc acccttgcat gttgccaaac gcaggcatct cgag 344

```

<210> 93
 <211> 530
 <212> DNA
 <213> Mus musculus

<220>
 <221> unsure
 <222> (30)

<220>

<221> unsure
<222> (69)

<220>
<221> unsure
<222> (105)

<400> 93
gaattcggcc aaagaaggct aggaagctgn tgagctagac ggaaccaaaa gcattctaaaa 60
ggatgtacnt cagagggatt cagccattcc actcctaccc ctccntcaga acctcatgaa 120
gttcctggct ttcctgagtc tgttgagctt ggtgctgcag aaggcagaga cagcttctct 180
cctaggggag agagaaagag aagagcagag ccctgaggaa ggtgacaact tacgcgtccc 240
tgtatgtggg gaaccatacc ctgagcatag aggactacaa cgaggtcatt gatctcagca 300
actatgaaga actggcagac tatggagacc agatccctga ggctaaaata agcaatctga 360
ctcttccaac aagaactagt cccactagca ctgtggctca gaagacattg tcaccaaacc 420
tcacgatggc cgtacctaacc accactggcc tactaaactc ccagagcagt catgcaaaac 480
tgagaaggat cgacctctct ggcaactcca tctcctccat ccacctcgag 530

<210> 94
<211> 644
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (191)

<400> 94
gaattcggcc aaagaggcct atggacctgc gtcagtttct tatgtgcctg tccctgtgca 60
cagccttttg tttgagcaag cctacagaaa agaaggaccg agtacaccat gagcctcagc 120
tcagcgataa agttcacaaat gatgctcaga attttgacta tgaccatgat gccttcttgg 180
gtgcagaaga ngcaaagagt tttgatcagc tgacaccaga agagaccaag gaaaggcttg 240
gaaagattgt aagtaaaata gatgacgaca aggatgggtt tgtcactgtg gatgaactca 300
aaggctggat taagtgttga caaaagcgct ggattcacga ggatgtagag cggcaatgga 360
aggggcacga cctcaatgag gatggcctcg tttcctggga ggagaataaa aatgccacct 420
acggctacgt tttagatgat ccagatcctg atgatggatt taattataaa cagatgatgg 480
tcagagatga gcggagggtt aaaatggcag acaaggatgg agacctaat gccacaaagg 540
aagagttcac agctttcctg caccctgagg aatatgacta catgaaagac atagtcgtgc 600
aggaaaccat ggaggatata gacaagaatg ctgatgggct cgag 644

<210> 95
<211> 413
<212> DNA
<213> Mus musculus

<400> 95
gaattcggcc acagaggcct atgctgtcgg agatggatgt aacaggtcag gcttttgaag 60
acatgcagga gccaaacggg cggtacttcc agcagttacg ggaaaaggat gacgccaacc 120
ttcaagttca tgcggagcg gatcaaggcc aaccagattc acaagctgct ccgagaggag 180
aaggatgagt tgggcgagca ggttcttggc cttaagtccc aggtggatgc ccagctgctg 240
accgtacaga agcttgagga gaaggagcgg gctctgcagg gcagcctcgg ggggtgtgga 300
aaggagtga ctctgcgcag ccaggctctg gagcttaata agagaaaggc tgtagaagca 360
gcccagttgg ctgaggacct gaagggtcag ttggagcatg tacagagctc gag 413

<210> 96
<211> 488
<212> DNA
<213> Mus musculus

<400> 96

```

gaattcggcc aaagaggcct attcagcatc atcattcagt ttctgttcac aagagcacca 60
gctgagctga aatccccctt ccagaggcca gaatggtctc atgctcgctt ctcccagtg 120
ctggatgac acccatctga aaaggacagg ctgctcctcc tcaggggagc cctggaagct 180
tatgttcagt cagtgaagaag cagggaagggt aaagaatttg caccagttta tcccattatg 240
gttcagctgc ttcaaaaggc tatgtctgct cttcagtgac ttgcagtctc catgaacaga 300
cccgccaaa gaaagcagtg ccaaattggtg gatggccagg aattgcacca gccagatca 360
tcatcatctg acagggagga catacagaaa atgcctgact ctgactcact gtttgctgt 420
acagagaaaa cagaaacttc tgttttgtta tttttaaaag atcttttaac acctctttta 480
aactcgag                                         488

```

<210> 97
 <211> 597
 <212> DNA
 <213> Mus musculus

<220>
 <221> unsure
 <222> (144)

<220>
 <221> unsure
 <222> (280)

```

<400> 97
gaattcggcc aaagaggcct agatgtgggc tccttcatga taaaactggt ggaaggcctt 60
cagggccaga tgtggtcttc agattgggct gaggagcttc ggaaagctga ccagcagaag 120
gagcagacct atcgggataa ggcnttaatg cctgtattac agcacctgaa cccagtatgg 180
gtgttacagc aggtggagga aactctgcct gacaatgcac ttcttggttg tgacggaggg 240
gactttgtgg ccaactgctgc ctacttagtc cagcccagan ggccctctgcg ctggctcgat 300
cctggggcct ttgggactct gggagttggc gcaggttttg cacttggggc caagctgtgt 360
cagccggagg ctgaggtgag gcattggatg tgggagacta actgccttct gggctgcgaa 420
ctaccctaac tgccctgggt cgtctcccc cctccctcgc ctccctccag gtttggtgcc 480
tgtttgggga tggagccttt ggctacagcc tcattgagtt tgacacgttc gtcagacata 540
aggtaccagt gatagccttg gtaggaaacg atgcagggtg gaccagatt tctcgag 597

```

<210> 98
 <211> 556
 <212> DNA
 <213> Mus musculus

<220>
 <221> unsure
 <222> (16)

<220>
 <221> unsure
 <222> (82)

<220>
 <221> unsure
 <222> (104)

<220>
 <221> unsure
 <222> (136)

<220>
 <221> unsure
 <222> (223)

<220>

<221> unsure

<222> (331)

<400> 98

```

gaattcggta agagangcct ggctgagaac tctggacgca agtttgctgc aactcacaga 60
tttagaacc aaagagagag anagaatgtg gcagatcatt ttcntaactt ttggctggga 120
tcttgctctg gcctcngcct acagtaactt taggaagagc gtggacagca caggcagaag 180
gcaqtaccag gtccagaacg gaccctgcag gtacacgttc ctncctgccg agaccgacag 240
ctgccgatct tcctccagcc cctacatgtc caatgccgtg cagagggatg caccctcga 300
ctacgacgac tcagtgc aaa ggctgcaggt nctggagaac attctagaga acaacacaca 360
gtggctgatg aagctggaga attacattca ggacaacatg aagaaggaga tgggtggagat 420
ccaacagaat gtggtgcaga accagacacc tgtgatgata gagattggaa ccagcttgct 480
gaaccagaca gcagcaca aa ctcggaaact gactgatgtg gaagcccaag tactaaacca 540
gacgacaaga ctcgag                                     556

```

<210> 99

<211> 380

<212> DNA

<213> Mus musculus

<220>

<221> unsure

<222> (14)

<400> 99

```

gaattcggcc aaanaggcct agcgccttct tggaatagcg tgtgaagatg gccctcatat 60
cctctgccaa tgcgtaaaag gtgtaggcag catgccacct gcggcgacaca gctgggtcca 120
tgccccgcca ggtcaggtgc caccacctca tagccgagtc gcacaaagaa gtctagctgc 180
tccttcagaa tggcgagtga gccaccgact ccgtgaatga agaacagcac cacatcagcc 240
tgccgaccct tgcagctggt gatgcgctgc tcacagtcga tgtggatggt cctcttcgga 300
cgccgtgggc ggccgctcg cccgctgccc ggggtggccc ggggtgtctc tcctgcgggc 360
tcagccagct caacctcgag                                     380

```

<210> 100

<211> 592

<212> DNA

<213> Mus musculus

<220>

<221> unsure

<222> (52)

<220>

<221> unsure

<222> (117)

<220>

<221> unsure

<222> (132)

<220>

<221> unsure

<222> (431)

<400> 100

```

gaattcggcc aaagaggcct agagcgaccc tgttacacta aagatgaaag gntgggggtg 60
gctagccct acttttggg gtcctgctgg gaactgcctg ggatcgaagg agccaanac 120
tacactgtgg ancttcgagg gctctggtgg atgaattaga gtgggaaatt gcccgctgg 180
acccaagaa gaccattcag atgggatcct tccgaatcaa tccagatggc agccagtcag 240

```

```

ttgtggaggt accttatgcc cgctcagagg cccacctcac agagtgtgctt gaggaggtgt 300
gtgaccgaat gaaggagtac gggaacagat tgaccttcta cccaccgcaa gaactacgta 360
cgcgtcgtga gccggaatgg agaattccagt gaactagact tacagggcat ccgaattgac 420
tcagatatca ncggcacccct caagtttgcg tgtgagagca ttgtggaaga atacgaggat 480
gagcttatcg aattcttctc cagagaggct gacaacgtta aagacaaact ttgcagtaag 540
cggacagatc tatgtgacca tcccctgcac agatcctcac gaagagctcg ag 592

```

<210> 101
 <211> 382
 <212> DNA
 <213> Mus musculus

<220>
 <221> unsure
 <222> (150)

```

<400> 101
gaattcggcc aaagaggcct aaagacatgg tcagttttga agtcccagtc catcacgttc 60
ttgtcacagc atgaaatgat ggcttcatcn aaatgtggac gcttccacag gataagaaaag 120
ttcctccatc ttgtctgtgt gaggccaaaa ctggtgccag gctgacatgt cttactgtgt 180
ggttagacag agcagcaaat ggaatggcga gccttctctc agcagcagag ccctgccctg 240
accaacctaa gacaatcgaa aaggaatctg gtgacacagt tcaggaagaa acatcagaac 300
ctaactcgga gaaatctgat gtaagtgttg acagcaagca gccaaacaaa ggaaatagcc 360
cagtgcacagc caagaactcg ag 382

```

<210> 102
 <211> 640
 <212> DNA
 <213> Mus musculus

<220>
 <221> unsure
 <222> (9)

<220>
 <221> unsure
 <222> (13)

<220>
 <221> unsure
 <222> (30)

<220>
 <221> unsure
 <222> (38)

<220>
 <221> unsure
 <222> (41)

<220>
 <221> unsure
 <222> (47)

<220>
 <221> unsure
 <222> (54)

<220>
 <221> unsure

<222> (56)

<220>

<221> unsure

<222> (60)

<220>

<221> unsure

<222> (65)

<220>

<221> unsure

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<221> unsure

<222> (122)

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<221> unsure

<222> (183) .. (184)

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<221> unsure

<222> (312)

<220>

<221> unsure

<222> (316)

<220>

<221> unsure

<222> (353)

<220>

<221> unsure

<222> (388)

<220>

<221> unsure

<222> (423)

<220>

<221> unsure

<222> (490)

<220>

<221> unsure

<222> (503)

<220>

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<222> (616)..(617)

<220>

<221> unsure

<222> (623)

<220>

<221> unsure

<222> (632)..(633)

<400> 102

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gaattcggna acngaggcca aaggaatccn taagggcntg naaactntct gaananaaan 60
gctangatga angacncgcc actccaagtc catgtgctac ttggccaagc tatcactaca 120
cnagancagn ctatagataa aaaaaaggat tgccccaat tatgtacctg tgagatcagg 180
ccnnggttta ccccagagtc catctatatg gaggcacga cagtggactg taatgactta 240
gggccattaa acttcccagc cagattgcct gccgacacac agattctcct cctacagact 300
aacaatattg cnaganttga acattccaca gacttcccag tgaacctgac tgnccctggc 360
ttatctctcc acaatttatc ttcagtcnct aatattaatg tacacaagat gtctcagctt 420
ctntctgtgt acctagagga aaacaagcta cctgagctcc cggaaaagtg tctatatgga 480
ctgagcaacn tgcagggact ctncgttaat cacaacctgc tctctaccat ttcctcccgg 540
agccttcatt ggcctacata atcttctccg gcttcatctc acctcacaca gactgcagat 600
gatcaacant cnatgnnttg atnctctccc cnntctcgag 640

```

<210> 103

<211> 337

<212> DNA

<213> Mus musculus

<400> 103

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gaattcggcc aaagaggcct actctcttta cctctcttta cctgtatatt ataaacagct 60
gggaatgtca cctagccaga gtggactgtt ggtgggcatt cgatacttca ttgaattctg 120
cagtgcctcc ttctggggtg tagttgcaga tcgtttcaga aaggggcaaaa ttgtcctcct 180
cttttcgctt ctgtgttggg ttttgttcaa cctgggcatt ggatttgtca aacctgctac 240
cttgagatgt ctaccaaaga tcccccaac agctcaccac accaatgtaa gtcaccagct 300
aactgttctg ccaatgaact cctccactgt gctcgag 337

```

<210> 104

<211> 382

<212> DNA

<213> Mus musculus

<220>

<221> unsure

<222> (86)

<400> 104

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gaattcggcc aaagacgcct aagaacccat gggactccca aggcggctgc tgctgctgct 60
gttgctggcg actacctgtg tccancctc ccagggcctg cagtgcacgc agtgtgagag 120

```

```

taaccagagc tgcctggtag aggagtgtgc tctgggcccag gacctctgca ggactaccgt 180
gcttcgggaa tggcaagatg atagagagct ggagggtgtg acaagaggct gtgcccacag 240
cgaaaagacc aacaggacca tgagttaccg catgggctcc atgatcatca gcctgacaga 300
gaccgtgtgc gccacaaacc tctgcaacag gccagacccc ggagcccag gccgtgcttt 360
ccccaggggc cgttacctcg ag 382

```

<210> 105

<211> 437

<212> DNA

<213> Mus musculus

<400> 105

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ggtccaacac tggaggcatc ttcctcatgg ctgggggttg attcggett cttttttgct 60
ggatattgat gatccttgtg gttcttacgt ttgttgttg tgcaaatgtg gaaaagttgc 120
tctgcgaacc ttatgaaaac aagaaattat tacaggtttt ggacactccc tatctgctca 180
aggaacaatg gcaattttat ctttctggca tgctattcaa taaccagac attaacatga 240
cctttgagca agtctacagg gattgcaaaa gaggtcgagg tatatatgct gcttttcagc 300
ttgagaatgt cgtcaacgtc agtgatcatt tcaacattga ccagatttct gaaaacataa 360
atacggagtt ggaaaaacct aatgtgaaca ttgatagcat tgaactgttg gataacacag 420
gaaggaagag cctcgag 437

```

<210> 106

<211> 169

<212> DNA

<213> Mus musculus

<400> 106

```

gaattcggcc aaagaggcct acaggggtaa gggggagatg atttttaaaa aaattcagct 60
gttggttagg gcattgtgaag taggggcatt atgtctgttt cttattacga taaaggctcc 120
tcagtcttta ctgacccta aagtcctgaa tcacaccagg cgtctcgag 169

```

<210> 107

<211> 446

<212> DNA

<213> Mus musculus

<400> 107

```

gaattcggcc aaagaggcct agttcgtatc ttctgttgac tacaaccccc gggacaacca 60
gctctatgta tggaaacaact actttgttgt gcgctatagc ctggagtttg gacccccaga 120
tcccagtgtc ggcccagcca cttccccgcc tctcagtacc accaccacag cccggcccac 180
accctcacc agcacagcct cgcctgcagc caccactcca ctccgccggg caccctcac 240
cacacacca gtgggtgcc tcaaccagct gggacctgac ctgcctccag ccacagctcc 300
agcaccagc acccgaaggc ctccagcccc caatctgcat gtgtccctg agctcttctg 360
tgaaccaga gaggtccggc ggggtccagt gccagctacc caacagggta tgctggtgga 420
gagaccttgc cccaaggga ctcgag 446

```

<210> 108

<211> 426

<212> DNA

<213> Mus musculus

<220>

<221> unsure

<222> (87)

<400> 108

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gtgtccggag attgactgc agcgtantgg cgcgggcccgg tggccagtgg cgactccagc 120
aagggttggc tgccaaccct tccggctatg ggcccctcac ggagctccct gactggctcc 180
tcgctggtgg cgcctctgca ccccaaatga aaggccaact tcgaagaaaa gctcaaaggg 240

```

```

agaagcttgc aagacgagtt gtactgctga cacaggaaat ggatgctgga atacaggcat 300
ggaagctcag gcagcagaaa ttgcaggaag aaaggaagaa ggaacatgat ctcaaacct 360
aagggaacttt actgagaagc ccacttccga atcaataaaa agcagctcct gccccacaaa 420
ctcgag                                         426

```

<210> 109
 <211> 454
 <212> DNA
 <213> Mus musculus

<220>
 <221> unsure
 <222> (18)

<220>
 <221> unsure
 <222> (448)

```

<400> 109
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aacctccttt ctggggccat tccttttggc ctgggtgctg cctcttgccc gaggccagac 120
ccccaaactac acgagacctg tgttctctgt cggagggggac gtgaccgggg agtcagggtta 180
cgtggcaagt gaggggtttcc ccaacctcta cccccaaac aagaagtgga tctggacaat 240
tacgtgcccc gagggccaga ctgtgtccct gtccttcga gtcttcgata tggagctcca 300
cccttctctgc cgctacgatg ctctggagggt ctttctctggc tctggcacct caggccagcg 360
acttggacgc ttctgaggca ccttcaggcc tgcacctgta gtcgcacctg tcaaccaagt 420
gactttaagg atgacaactg acgtgggnct cgag                                         454

```

<210> 110
 <211> 377
 <212> DNA
 <213> Mus musculus

```

<400> 110
gaattcggcc aaagaggcct agtctgaatg ccagaatgga taaccgtttt gctactgcat 60
ttgtgatgac ttgtgtgctt agtctgattt ccaccatcta catggcggcc tccataggca 120
cggacttctg gtatgagtat cgaagtccca ttcaagagaa ttcaagtga tcgaataaaa 180
tcgcctggga agatttcttc ggtgacgagg cggatgagaa gacttacaac gatgttctgt 240
tccgatacaa cggcagcttg gggctgtgga gacggtgcat caccataccc aaaaacactc 300
actggtatgc gccaccggaa aggacagagt catttgatgt ggttacaaa tgcattgagt 360
tcacactaaa tctcgag                                         377

```

<210> 111
 <211> 426
 <212> DNA
 <213> Mus musculus

<220>
 <221> unsure
 <222> (117)

```

<400> 111
gaattcttctg gccaaagagg cctactgatt cgaatcagaa aacttacact gaagcgacag 60
aggaagcttg ttctctttgag taagaagggt gaacgaaggg aaaaacgaag agagganaaa 120
gcattaatag ctgccagctt ggacaatgct attgagaagg aattgctgga gagactgaaa 180
caagatacgt atggcgacat ctacaacttc cccatccatg ccttcgacaa ggccctagag 240
aaacaggaag cagaaagtga ctctgaagat gaagacgaag aagaggatgt ggggaaaaga 300
gagttttaga aagatgagga ggtggaggag agtgacctga gtgactttga ggatatggat 360
aaactgaata ctgacagtga ggaagaccag gatgatgaat cctccaatga agaagagcga 420
ctcgag                                         426

```

<210> 112
 <211> 460
 <212> DNA
 <213> Mus musculus

<220>
 <221> unsure
 <222> (101)

<400> 112
 gaattcggcc aaagaggcct accaaccctt accagttcgc atcttctgtt gactacaacc 60
 cccgggacaa ccagctctat gtatggaaca actactatgt ngtgcgctat agcctggagt 120
 ttggaccccc agatcccagt gctggcccag ccacttcccc gcctctcagt accaccacca 180
 cagccccggc cacaccctc accaccacag cctcgccctgc agccaccact ccactccgcc 240
 gggcaccctt caccacacac ccagtgggtg ccatcaacca gctgggacct gacctgcctc 300
 cagccacagc tccagcacc agtaccgaa ggcctccagc ccccaatctg catgtgtccc 360
 cttgagctct tctgtgaacc cagagaggtc cggcggttcc agtggccagc tacccaacag 420
 ggtatgctgg tggagagacc ttgccccaa ggaactcgag 460

<210> 113
 <211> 501
 <212> DNA
 <213> Mus musculus

<220>
 <221> unsure
 <222> (22)

<220>
 <221> unsure
 <222> (35)

<220>
 <221> unsure
 <222> (68)

<220>
 <221> unsure
 <222> (374)

<220>
 <221> unsure
 <222> (417)

<220>
 <221> unsure
 <222> (421)

<400> 113
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 gggcaganaa tcccaaggct tgactcctaa ccgtgagcgt ccaggcgcta ctctggggcc 120
 ccttccggtc ccacettca cgcgctgag tctgggaccc cccgactcgc taaggaccaa 180
 cttcgacta caagaagaac acgggggtgcc ccaggacgag cgacgctgc agttaaggct 240
 gtgacccctt taacctctc gtccaaatcc ccgtggcgcc cttcccaact gcagacgcgc 300
 ccagcctctc cggctccacc gcaatgggtc ccgctgcccc acgcctaaa ccgggagccg 360
 gaccggggc ctcntgtcat gctgttgctg ggacccaaag cgcagacccc atttttcccc 420
 ncaggcgcg gggcgaacta agaacgctga gccccacaga gccgccagcg atgttaaact 480
 taaatgccc gtcgctcga g 501

<210> 114

<211> 419
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (119)

<220>
<221> unsure
<222> (392)

<400> 114
gaattcggcc aaagaggcct agtgaatggg gtcagtactg caagcagctc ctggacggct 60
tcacggggcct ccggctccag cacagcatat cgacgtagct gccggtcggg acaaatgtna 120
gaaaagcgaa gaacaagaac tggagcccca gggaatggac ctgagccctc agacactggg 180
tctccttggg ttctagtctc ggactctagc tcagctgcca ccagactctg tagctccagc 240
cgctccagag tccgagctgc ttggagtcc acatcaaaca agtgggcaga agtgaccg 300
agaaagcact ccttgccctg cacaccccca agtccctgca agggacatac caacatggg 360
cgacagagct cagcttccac tgccttctgc tncctgctcct cctcctcctc ctctcag 419

<210> 115
<211> 307
<212> DNA
<213> Homo sapiens

<400> 115
gaattcggcc ttcattggcct acttttccct tatcaacaac tccatcgctc acctgcactg 60
caaaactccg gtctgcatgg aatcccccg agccacgtgc aaaatcaatt gcaataactt 120
tcggttctg caaaatagtg aaacctctgc cacacaccag atgtcctggg gacccctcat 180
ccggtctgaa gaagcaggcc tgggtgccgg ttatgtgggc cttattgtgg tggccatctt 240
cgtgctgggt gcgggaacag ccacccttct gatcgtgccc taccagagaa tgaacgggag 300
tctcag 307

<210> 116
<211> 289
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (91)

<220>
<221> unsure
<222> (198)

<400> 116
gaattcggcc ttcattggcct aaagagattg gtaaataagc agttaaaact caaagaagaa 60
taaagtgagg gtggataaga agcataagta ncattctgtg gctgtgaaga ggaaggagca 120
attaaaagtg acttgaagat tagaattggt catgtcttct tgttttttgt ttttgttttt 180
tgagacattg tttcactntt gtcgcccagg ctggagtgc atggcgcaat ctcagctcac 240
tgcaacctcc acctccctgg cctcaagtga tccaccacc cgtctcag 289

<210> 117
<211> 330
<212> DNA
<213> Homo sapiens

<400> 117

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gaattcggcc ttcattggcct aatattttgt ttagcatttc tagttttcct cagtggatct 60
gtcatccag aaatggaagt cccctacata tattttctaa gcttttttga gttggttttt 120
tggttttttt tccctccctt tctgcctctc tccctccttt tctctccct cctgcctct 180
tccgtccctt cctccctcc cctgcctctc tctccgtccc tctttctttt ctccctgcct 240
gcctgcctac ctgcagttgt ccgagcaggg attactgggg ctggagggtc cctttccaag 300
atggctcatt cacatggctt ccagctcgag 330

```

<210> 118

<211> 304

<212> DNA

<213> Homo sapiens

<400> 118

```

gaattcggcc ttcattggcct aaaaaaatt atttaatttg ctaatctttg tattctagt 60
tgctgcaaaa gtgagcacat aattttgttt ttttgtttct taatgttttg 120
agaatttttg tgggtttttt gtttgttctt tgagacgtac tcccgccctg ttaccagggc 180
tgaggtgcaa ttgcgcgac ttgggtcact gcaacctccg cctcccggtg tcaagcgatt 240
ctcctgcctc agcctccaga gtagctggga ttacaggcgc ccgccaccac gccacacgct 300
cgag 304

```

<210> 119

<211> 348

<212> DNA

<213> Homo sapiens

<400> 119

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gaattcggcc ttcattggcct aggggaaatg aaacatttct gtaacctgct ttgtatcttg 60
atgttctgta atcagcaaag tgtatgtgac ccgccttcac aaaataatgc agcaaatatt 120
tccatgggtc aagctgcttc agcaggaccc ccatctctga gaaaagatc gactccagtt 180
atagccaatg tagtatcatt ggcaagtgc cctgctgctc agcctacagt gaattctaac 240
agtgtcttac aaggtgcagt tccaacagta acagcgaaaa tcatcggtga tgcaagtact 300
caaacagatg cctgaaaact gccaccttc caaccccaa ggctcgag 348

```

<210> 120

<211> 323

<212> DNA

<213> Homo sapiens

<400> 120

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gaattcggcc ttcattggcct aaaagtgtg gcatattgct gtggccagca accagatgat 60
gtgtttctgc ttcctgggtc ttattacag gaaagatggg tgacatatca cagggccag 120
catccaggat ctgtgggaca gaccagcag gtggtgcccc atgtaagaag caatgaaatg 180
catcatgatg gaacctcaa aaacgaaagt gaagttactg cacacctctt aggtcctctt 240
tggtattccag catgatgcat caaaccttac cacggcatga ctagggccca acctgctacc 300
agaaataaag gaaataactc gag 323

```

<210> 121

<211> 329

<212> DNA

<213> Homo sapiens

<400> 121

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gaattcggct aaagaggcct acaggaactg agcaagatct tccttccctt gaaaatagtt 60
ctgttaaaga ataccgaatg gaagttccat cttcgttttc agaagacatg tcaaatatca 120
ggtcacagca tgcagaagaa cagtccaaca atggtagata tgacgattgt aaagaattta 180
aagacctcca ctgttccaag gattctaccc tagccgagga agaattctgag ttcccttcta 240
cttctatctc tgcagttctg tctgacttag ctgacttgag aagctgtgat ggccaagctt 300
tgccctccca ggacctgag gagctcgag 329

```

<210> 122

<211> 379

<212> DNA

<213> Homo sapiens

<400> 122

```

gaattcggcc aaagaggcct agtgagtctg ggagaacgtg aagatgtgta tgtatctaag 60
aagttttttt tgttttgttt tgtttttgag atggagtcta gctctgtcac ccaggctgga 120
gtgcaatggc acgaactcag cccactgcaa cccccgcctc ccgggttcac accattctcc 180
tgtctcagcc tcccagtag ctgggaccac aggcattgagc caccacaccc agctaatttt 240
tgtattttta gtagagacag ggtttttcca tgttggtcat gctgggtctg aactcccaac 300
ctcaagtgat cctcctgcct cggcctccca aagtgtctggg attacaggag tgagccactg 360
cgcccgcca gctctcgag 379

```

<210> 123

<211> 245

<212> DNA

<213> Homo sapiens

<400> 123

```

gaattcggcc aaagaggcct atgaattcta gacctgcctc gagtttctctg tttttcttct 60
ttattcttat tactatttct atggcctcca catttacttc cttttgcctt ctttctttcc 120
gttacactat taattctttc tacatcttga agtttctttt ccttctctct cctctctctg 180
caacccccat catacacaca cacacacaca catcatacac acacacacac acacacccac 240
tcgag 245

```

<210> 124

<211> 134

<212> DNA

<213> Homo sapiens

<400> 124

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gaattcggcc aaagaggcct aatgaatata tatatatgaa aaaacaatat atatacatat 60
tggttttgat actatccaca gtttcagtca tcaactgcgag gtcttggaa cgtgactact 120
ataaggggct cgag 134

```

<210> 125

<211> 216

<212> DNA

<213> Homo sapiens

<400> 125

```

gaattcggcc aaagaggcct agtgggggtg ggaatctagg gtgtacttaa gatgtcttca 60
aatgttttta ttttattttt atgtatttat tttatttatt tatttatttt ttcagagaca 120
gaatctcggt tgggcacggt ggctcatgcc tgtaatccca gcaactctggg aggcagaagt 180
gggaagatcc ctcgaggcag gtctagaatt caatcg 216

```

<210> 126

<211> 344

<212> DNA

<213> Homo sapiens

<400> 126

```

gaattcggcc aaagaggcct aggagaaaga agcattgtgg ctttatatcc tctgggcctg 60
ggtttcttga agtcaccaca catagaggag agagaaaatg gctgagttaa agtacatttc 120
tggaatttgg aatgagtgtt cttcagagga tcctcgctgc ccaggttccc tgccagaagg 180
acagaataat cctcaggtct gccctacaa tctctatgct gagcagctct caggatcggc 240
tttcaattgt ccacggagca ccaataagag aagctggctg tataggattc taccttcagt 300
ttctcacaag ccctttgaat ccattgacga aggccacgct cgag 344

```

<210> 127

<211> 308

<212> DNA

<213> Homo sapiens

<400> 127

```

gaattcggcc aaagaggcct agtgagaaaa gcacactgtt tcaattgcaa atttcaggca 60
accctgttgc ttctgacaaa ataatagttt gagtagcctc aggttctggg tggcgtccct 120
ctcaaaaagt ctgcttctgt gagttgtaat tatcaatggc tcttggcttc ttagaaaaag 180
taccagctt tccttctac tttattgttt tgtttgttt tttagagaca ggtctctgtt 240
ctgctgcccc ggctggagtg cagtggcatg atcggaactc actgcagtct caaactcccg 300
ggctcgag                                     308

```

<210> 128

<211> 277

<212> DNA

<213> Homo sapiens

<400> 128

```

gaattcggcc aaagaggcct agtcacagtg aactgcaaag aagttattat agcagatgaa 60
tacaactac ttggtgactg gctggatcct tgaatggtgg tacagagctg tgatctggag 120
tgtgtctctc ggagccaggc tgcctcagtt tattttatct tattttatct tatcttattt 180
tgttttattt tattggagat ggagtctccc cattaccag gctgcagtgc agtggcatga 240
ccatggctca ttgcagctc aacgcccagg actcgag                                     277

```

<210> 129

<211> 185

<212> DNA

<213> Homo sapiens

<400> 129

```

gaattcggcc aaagaggcct aagtgtgttt tccctctttt agtttttgtg aaagctggtt 60
gttaaaaaaga acctggtacc ttctccttct cctctgtttt ccactctggt catgtgatct 120
ctatacacca gctccccttc acctctctgc atgagtgaag gcagactgag gccctcagcc 180
tcgag                                     185

```

<210> 130

<211> 352

<212> DNA

<213> Homo sapiens

<400> 130

```

gaattcggcc aaagaggcct agtcacacat aaaaccaatt aaattttatg tccacaataa 60
aatgcaaagt ctttgttgtg acactcagaa ctattccag ccacctctcc tgccattttc 120
ctgcaatatg atttatccta ggcatactga accgtcagtc agtctcctgg attgctatgt 180
atgtgcacat gcctcttctc tctttgtcga gctacatgtc atgcttcaa cctcagggtga 240
gatgatagtt tctccatgta accttcaggt ggggctaggt accttgcac tgtgcttcct 300
tggcaccttg catttagctg catggctctg cagctcttcc actaaactcg ag                                     352

```

<210> 131

<211> 445

<212> DNA

<213> Homo sapiens

<400> 131

```

gaattcggcc aaagaggcct agcaatacat tcaataacat aactaaagaa cagaggccag 60
gcacagtggc tcacgcctat aatgttttaa ggcactctgt attacctttt tgcattttct 120
gagaaagact gtctaaagaa aaccacctga taaatgatga ataaatattt ttaatgaatc 180
tgtaggaaaa aagattactc ttaaaatgat ctacatttga aaaatttcaa tacattcaat 240
aacataacta aagaacagag gccaggcaca gtggctcacg cctataatcc cagcactttg 300
gaaggctgag atggggcgat caagagggtca ggtgttcaag accagcctga ccaatatggt 360

```

gaaaccctgt ctctactaaa aatacaaaaa tcagccagtc atggtgggtgc gcacctgtag 420
tcccagctac ttgagaggac tcgag 445

<210> 132
<211> 450
<212> DNA
<213> Homo sapiens

<400> 132
gaattcggcc aaagaggcct agattcattt aaaggattta caaattcatc aaccctgaa 60
aactaaagca aattgaacag gaaaaaaaaa aagaagatgg gttttttaag tccaatatat 120
gtttatttct tcttttttgg agtcaaagta cattgccaat atgaaactta tcagtgggat 180
gaagactatg accaagagcc agatgatgat taccaaacag gattcccatc tcgtcaaaat 240
gtagactacg gagttccttt tcatcagtat actttaggct gtgtcagtga atgcttctgt 300
ccaactaact ttccatcatc aatgtactgt gataatcgca aactcaagac tatcccaaat 360
attccgatgc acattcagca actctacctt cagttcaatg aaattgaggc tgtgactgca 420
aattcattca tcaatgcaac ccatctcgag 450

<210> 133
<211> 322
<212> DNA
<213> Homo sapiens

<400> 133
gaattccgcc aaagaggcct aagctttctt ccctttgatt ctattccact gactgccttc 60
tgtttacaca atgagagtga tgctttcatt ctttatcccc aaaccaatca ggatcagatt 120
tgcaaaactca tcaggaaaaa atggaagaaa agggagtcct ctgaaatcaa gacttttcta 180
ctgcttcagt aacattaaaa ataaacagct agggagaggtt tttttgtttt tgtttttgtt 240
tgtttttggc ttgggggagtg tgggtggaag ggggttgtct aaatggtgtg caaggaaaat 300
caatacccaa ctaacactcg ag 322

<210> 134
<211> 422
<212> DNA
<213> Homo sapiens

<400> 134
gaattcggcc aaagaggcct agggtcacag ggtgggtatc tcacttcgca gcttttcttc 60
tctgaggcca gaaaaggaaag gggtttgctt tcctctagta ttattcttc tggactacat 120
caagtactct aagcctgatg ttaggcaata actgcccatt agccattggc tacatttgcc 180
tctttcttgt tccaacaata ttagtgatct gtggtacagg acacactctt tgtttgctag 240
ctacaaattc taacaaagct aagttttatt catgtagtta ttcacaaatt aaaacaacac 300
acacaccaca cacacacaca cacacacaca cacacacata ccacaaaacc 360
cagagatcac caaatactat ataaataaac aagcccaaag tcacagatca gggacactcg 420
ag 422

<210> 135
<211> 308
<212> DNA
<213> Homo sapiens

<400> 135
gaattcggcc aaagaggcct aagtcatcat atctcatctg agttcttgca atagctccca 60
agttgggtttt ctgtcttcca tacttccctc tataaaactgc tcttagcaca gcagccaaag 120
cagtgaaaaat aattaagctc atgccacttc tctgtcgaag cctccttttg ctatgcgttt 180
tgctcagga aagctggatc ccttacaatg ttgtacaggc cctacacaat ctgatccctg 240
ttactttctga ggcctttatct ccaagtgcgc ttctcctcgc tcactctact cagccacacc 300
aactcgag 308

<210> 136

<211> 298
 <212> DNA
 <213> Homo sapiens

<400> 136
 gaattcggcc aaagaggcct aaaagctttg gagatattga atcatgttac catttctgtt 60
 tttttccacc ctgttttctt ccatatttac tgaagctcag aagcagtatt gggctctgca 120
 ctcatccgat gcaagtattt catacaccta ctgtgataaa atgcaatacc caatttcaat 180
 taatgttaac cctgtatag aattgaaagg atccaaagga ttattgcaca ttttctacat 240
 tccaaggaga gatttaaagc aattatattt caatctctat ataactgtca acctcgag 298

<210> 137
 <211> 372
 <212> DNA
 <213> Homo sapiens

<400> 137
 gaattcggcc aaagaggcct accctcttga ccccttaggt ttgattgccc tttccccgaa 60
 acaactatca tgagcgcgag gctgcggtg ttgtctccac ctcggtggcc ggggctgtt 120
 ctgctgtcgc tgcctctgct gggggcggtt cctggcccgc gccggagcgg cgctttctac 180
 ctgcccggc tggcgccgt caacttctgc gacgaagaaa aaaagagcga cgagtgcag 240
 gccgaaatag aactatttga gaacagactt gattcagtgg aatcagttct tccttatgaa 300
 tacacagcgt ttgatttttg ccaagcatca gaaggaaagc gcccatctga aaatcttgg 360
 caggcgctcg ag 372

<210> 138
 <211> 190
 <212> DNA
 <213> Homo sapiens

<400> 138
 gaattcggcc aaagaggcct actgtcttaa agaatttctt cctttggttt atttcatctt 60
 tctactaggc cttttccctc agaattcaca ctgcccctat tgtctcccat ttgaaaacc 120
 ctgtcctttg acctgcata tttctgttgc tgtcatgttt ttctattctc tttcacaggc 180
 attactcgag 190

<210> 139
 <211> 204
 <212> DNA
 <213> Homo sapiens

<400> 139
 gaattcggcc aaagaggcct acgagccggc agttgacatt tccaaatata aaatcgtgca 60
 ttacagatgc tctctggatt gccagattt ctgttccaac gcagccactt tccattttta 120
 ttttttatta ttcttttgaa acagagtctt gctctgtcac ccaggctgga ggcaggctta 180
 gaattcaatc ggtttctccc tata 204

<210> 140
 <211> 329
 <212> DNA
 <213> Homo sapiens

<400> 140
 gaattcggcc aaagaggcct agcagtgcgc tgagataacg ccagtgcatt ccagcctggg 60
 cgacagggtg agactcttga ctaaacaca acaaaaacaa caacaacaaa attaggaata 120
 gagatctcgt ttgagagaa ttgagacct gttatctctt agtttttgcc ttttttccct 180
 ctatctcaga ggaagccaat atctactgtt tgatgttagc tatctttaac atcattttta 240
 aaaaaaccct attattagga agtatggtag atatatttaa atttttaccc ttctttttgc 300
 taactgaaaa tatatgcgta gccctcgag 329

<210> 141
 <211> 344
 <212> DNA
 <213> Homo sapiens

<400> 141
 gaattcggcc aaagaggcct actcatccaa attgcttagt tccctctatt catgtacatg 60
 tggatggtag cattcatgct ttattactca tacgaaaatt tcggctttat ccttgactct 120
 ccctcttcct cgttaccac atcccattag tctctatcta gtattttata taaccatccc 180
 ctcatctcca ttccactacc ctttacccta tgaaggccct caccattctt tccactagtt 240
 attgttatag cttgttaact gtttttattc tccgtctca agtctcattt tgctccaata 300
 taacttccat atttttgcc aacaatctg tctatacact cgag 344

<210> 142
 <211> 330
 <212> DNA
 <213> Homo sapiens

<400> 142
 gaattcggcc aaagaggcct aatgtaacaa acctgcacgt tgtgcacagg taccctagaa 60
 cttaaagtat aatttaaaaa aaaaattttt tttaagtata aacccaaaac aactgtctta 120
 aaatacagtg actcaaaata catgccccaa tgagtaggta ctcccaaatac tggctaataca 180
 ctggaatgac ctaagaaccc tttttttcag tcttgataga ctctatctcc agggctagag 240
 gcctagggcat ctgcatttta aagttcccca catgagtcct acggccaggc aagtttagga 300
 accccagctt aatgtatctg ttgtctcgag 330

<210> 143
 <211> 275
 <212> DNA
 <213> Homo sapiens

<400> 143
 gaattcggcc aaagaggcct aatctgagtt tgtttttcaa agatcactaa attttagtta 60
 tgattatata acattttcca aaatgtgtgg cagtttttgc cctccttgct ctgagtgttg 120
 gtgcactgga cacttttatt gctgcagtat atgagcatgc ggtgatatta ccaaacagaa 180
 cagaaacacc tgtttcaaaa gaagaagctt tgctcctgat gaacaagaac atagatgttt 240
 tggagaaagc agttaagctg gcagctttac tcgag 275

<210> 144
 <211> 290
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (152)

<400> 144
 gaattcggcc aaagaggcct actagacctg ccacaagtcc aaactcctag ctttaatttt 60
 gagtgttttt aacaaactgg cctctgttta tcattgtttc ttctagtact tccccaagga 120
 tgattgtacc ctacgactc aagaccgctt gntgttcccc tacacacttt ttgttcaagc 180
 tgtttgtttt acctggaatg ctgtctttgc acctctctcc tggacctggc tcaactctgt 240
 tgcccaggct ggagtgaat ggcgcgatct cggcacactg caacctcgag 290

<210> 145
 <211> 386
 <212> DNA
 <213> Homo sapiens

<400> 145

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gaattcggcc aaagaggcct acagagagggc tgagaccaac ccagaaacca ccacctctca 60
cgccaaagct cacaccttca gcctccaaca tgaaggcttc cgcagcactt ctgtggctgc 120
tgctcatagc agttgccttc agccccagg ggctcgtctg gccagcttct gtcccaacca 180
cctgctgctt taacctggcc aataggaaga tacccttca gcgactagag agctacagga 240
gaatcaccag tggcaaatgt ccccagaaag ctgtgatctt caagacaaa ctggccaagg 300
atatatgtgc cgacccaag aagaagtggg tgcaggattc catgaagtat ctggacaaa 360
aatctccaac cccaaccca ctcgag 386

```

<210> 146

<211> 133

<212> DNA

<213> Homo sapiens

<400> 146

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gaattcggcc aaagaggcct agcagtgaat ggcacatggg atgtattcaa tgaacgttca 60
acaaatcttt gtttttatcc ttattattat ccttccttcc caccctctcc ttgctagaag 120
tcacaggctc gag 133

```

<210> 147

<211> 197

<212> DNA

<213> Homo sapiens

<400> 147

```

gaattcggcc aaagaggcct agccagtatt gtaatctaca actttttaa attcactcat 60
ctgtcaagaa gcccaagaac aatcacctct ctaagatctt cagaatacaa aaaatgtatt 120
gttttaaggt tttttttttt ggttttttgt tttttgggtt tttgagacaa ggtcttgctc 180
tgtcaccag tctcgag 197

```

<210> 148

<211> 446

<212> DNA

<213> Homo sapiens

<400> 148

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gaattcggcc aaagaggcct agtttctggt ggtaaagaaa gatgaagacc tcttccggga 60
atggctgaaa gacacttggt gcgccaacgc caagcagtc cgggactgct tcggatgcct 120
tcgagagtgg tgcgacgcct tcttgtgatg ctctctggga agctctcaat cccagccct 180
catccagagt ttgcagccga gtagggactc ctccccctgc ctctacgaag gaaaagattg 240
ctattgtcgt actcacctcc gacgtactcc ggggtctttt gggagttttc tcccctaacc 300
atttcaactt tttttggatt ctgctctctg catgcctccc cgtcctttt tcccttgcca 360
gttccctggg gacagttacc agctttcttg aatggattcc cgcccccatg cctctttggc 420
cgattgaatt ctagacctgc ctcgag 446

```

<210> 149

<211> 422

<212> DNA

<213> Homo sapiens

<400> 149

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gaattcggcc aaagaggcct aaaaagctca acttgaagct ttcttgctg cagtgaagca 60
gagagataga tattattcac gtaataaaaa acatgggctt caacctgact ttccaccttt 120
cctacaaatt ccgattactg ttgctgttga ctttgtgcct gacagtgggt ggggtgggcca 180
ccagtaacta ctctgtgggt gccattcaag agattcctaa agcaaaggag ttcatggcta 240
atttccataa gaccttcatt ttggggaagg gaaaaactct gactaatgaa gcatccacga 300
agaaggtaga acttgacaac tgtccttctg tgtctcctta cctcagaggg cagagcaagc 360
tcattttcaa accagatctc actttggaag aggtacaggg agaaaatccc aagtttctcg 420
ag 422

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<210> 150

<211> 300
 <212> DNA
 <213> Homo sapiens

<400> 150
 gaattcggcc aaagaggcct aaactataga tacgactcta aggaccatcc cataagtagg 60
 gcacataggg aatagaattc ataccagaat tttaggattt ttttttacct tctaataatat 120
 aattagtctt aaatgtgtgt taaccttttt tcccccaat ttaagggttt gtgttttcat 180
 atcttatctt tttggattgc tcttataata atgaactctt cctgtatagg tatgaaatca 240
 ccagaagaac aactgggtgtg tgtgccacca caggaggcct ttcctaacga cgccctcgag 300

<210> 151
 <211> 374
 <212> DNA
 <213> Homo sapiens

<400> 151
 gaattcggcc aaagaggcct atattattta cctctgttac cctgtaggtc tctaaacttt 60
 taagtagact tattttttta aaagctacta tactcccttc tttctgaatc aaaaacattc 120
 agagataaga attagatgga agtaaagctc cctgtgggtt gtgctccatc acaatttttt 180
 tttttttttt tttttttttt ttagtagagg cagggtttcc ccatgttggc caggctagtc 240
 ttgaactcct gacctcaggt gatccccctg cctcggcctc ccaaagtgtc gggattgcag 300
 ggggtgagcca ccacgcccag ccttcacac agttttttat ggaaacagaa tacaagcag 360
 caaggcagct cgag 374

<210> 152
 <211> 347
 <212> DNA
 <213> Homo sapiens

<400> 152
 gaattcggcc aaagaggcct aaaataagaa tatgaaaagt tgcctaatgt cattagctaa 60
 ttgggaaatg caaattaata cctcaatgaa tatcactaca tacacaccag aatggccaaa 120
 atttaaatga ctgacaatat caagtgttgg tgaaaatgtg gaagatctga aatgctcata 180
 cattgctggt aagaatgtaa aatggtacag acacattgga aaaataattt ggcaatttct 240
 ttaaaagtta aacattactc aacaatgaaa atataatatt attgatacac agcaacttgg 300
 aggaatctct aatgctttat actgagtga aagaagctag tctcgag 347

<210> 153
 <211> 222
 <212> DNA
 <213> Homo sapiens

<400> 153
 gaattcggcc aaagaggcct attgaattct agacctgcct cgaattgtcc aaggaattga 60
 atggggagct ggtgcatttg tacactactt ctgttgctca ctgatgggca acagggtttt 120
 tatccccagc ctttccaggc tgccccggg agacagcagc tatggggagg caccaacca 180
 tgggtgttac tcattccaga atccttcttc ccctcactcg ag 222

<210> 154
 <211> 458
 <212> DNA
 <213> Homo sapiens

<400> 154
 gaattcggcc aaagaggcct agcctcgagt gacttggatt ttagtgggtat aaccacagaa 60
 atgtgtttta ctttccaggc tgcaggaaat ctgcagccat tctcccagcc aagttcgaca 120
 cctatcttca ccaatatgct tagaattcag gccacggaga taacaagcct ataccactca 180
 gaacagaaat ggtccttaat aatcatagaa tgattatgcc aaggaaatgg aaatccacaa 240
 acaatcctaa atctccttta aataagttac aatctcaccg ggcacggttg ctctgcctg 300

taatcccagc acttttgggag actgaagcag gaagattgct tgagaccagg agtttgagac 360
 caccctgggc aatatagcaa gaccctgtctc tgcaaaaaaa attaaaaact tagctggtgg 420
 tgggtgcctg taatcccaac taccgggtgg ggctcgag 458

<210> 155
 <211> 353
 <212> DNA
 <213> Homo sapiens

<400> 155
 gaattcggcc aaagaggcct atggaaaaca tggtccttca gtcgtcaatg ctgacctgca 60
 ttttcctgct aatatctggt tcctgtgagt tatgcgcga agaaaattt tctagaagct 120
 atccttgtga tgagaaaaag caaatgact cagttattgc agagtgcagc aatcgtcgac 180
 tacagggaagt tccccaaacg gtgggcaaat atgtgacaga actagacctg tctgataatt 240
 tcatcacaca cataacgaat gaatcatttc aagggtctgca aaatctcact aaaataaatc 300
 taaaccacaa cccaatgta cagcaccaga acggaatcc cggtaacttc gag 353

<210> 156
 <211> 272
 <212> DNA
 <213> Homo sapiens

<400> 156
 gaattcggcc aaagaggcct aagttagtaa gggatattta tagatttttt aaaatgctta 60
 gtgcattcct ctatttcctc attatatgta tgtctagggt tgggtcaagac catgccagggt 120
 caaaccttat ttggaatttc aaaacacgag aagaactgaa agatactctt gaatctgaaa 180
 tgagagcatt taatattgac agagaacttg gaagtgcaaa tgtgactctc tggaaccacc 240
 atgagtttga ggttaaatat gagctgctcg ag 272

<210> 157
 <211> 312
 <212> DNA
 <213> Homo sapiens

<400> 157
 gaattcggcc aaagaggcct aaggtatata aaagtcctag cacagagcgt gtcataataat 60
 atggcttcac aagtaccctc atctccttcc cagtcgtttt ttgtttttgt ttttgttttt 120
 ttgagaccat ctactctgt tgcccaggct ggagtgcctc ttcattttta tttctttatt 180
 cagcaagtat tgatcaaatg tgctttgtac caggtaactga gctcttcgtt gggatataat 240
 ggtgatcaag gagattgtag attctggcag ggaaaactga catcaaacac gacgaccccg 300
 acctgcctcg ag 312

<210> 158
 <211> 445
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (68)

<400> 158
 gaattcggcc aaagaggcct agtctgctat gcttttagtag cattctgtgt gtctttttgt 60
 caaagctntt aaaacgtatc attgtcctta ccaatcccca ctggactgta agcactctga 120
 gaatgggcac tctttctttt ctgtcgccag tgctctggcac gtagtagctg ttcagtaatg 180
 ctgagtatga caaactgtat tagtcatata gattaccaaa gtgtatcttg gcacctaaga 240
 aaatgagtag gcaatgtgag gtgagtatac tttgaataat cttgaaatgc actacagtca 300
 catatgcacg tatgatttct gttattttgga taattctgtt ggatgattat ttactatgtg 360
 aaaatattgt cataaaatgt atgacacttt tattccttat tagattatgt tatatgtttc 420
 atagaatgat accgcttttc tcgag 445

<210> 159
 <211> 165
 <212> DNA
 <213> Homo sapiens

<400> 159
 gaattcggcc aaagaggcct accagcaagg attggaaatc aacaagacaa ctgaatgaaa 60
 ctcaggtctg ttttcctcaa agtgtgggtcc tgggttcagg tgctcacatc ggaattacat 120
 aattgtgcaa aacttggact gccctgtgtc cctagagacc tcgag 165

<210> 160
 <211> 270
 <212> DNA
 <213> Homo sapiens

<400> 160
 gaattcggcc aaagaggcct agagtaataa gtactgggac aataacaact acataactaat 60
 tattccaaac attaaagaac agaggttttt tgttttttgt tttctagtag aaaaacctaa 120
 gtttagagtt cccaactttc atttttttct aatataattg agcaaaagca caacaaaaat 180
 gaatatatga tgttgatttt tgggtctcatt ttattttttt cttctttttt tcccactcat 240
 ggtactactg tgcattgtga caggctcgag 270

<210> 161
 <211> 334
 <212> DNA
 <213> Homo sapiens

<400> 161
 gaattcggcc aaagaggcct atgagaagag tggcgtagtt ttacattttt cctaaatctc 60
 cttaagggtct gccttaatag aaagcatcag ctggcttctg cattctgtcg acagggatat 120
 gttgggggttt ttttgttttt tgttgcgtgt gttttttgag acggagtctt gctctgtcgc 180
 ccaggctgga gtgcagtggc gctatctcgg ctactgcaa gctccgcctc ccgggttcac 240
 gccattctcc tgcctcagcc tcccagagtag ctgggactac gggcgtctgc caccacacct 300
 ggctaattat tttgtatttt tagtgggact cgag 334

<210> 162
 <211> 180
 <212> DNA
 <213> Homo sapiens

<400> 162
 gaattcggcc aaagaggcct actgaataac ataattgtgc cctttattaa gttgttacta 60
 ttattatattg tggagacggg gtctcactct gctgccaggc tggagagcag tggcgtgatc 120
 atagctcact gcgggctcaa gggatcctcc tgctcagcc ccagttgcc aggactcgag 180

<210> 163
 <211> 307
 <212> DNA
 <213> Homo sapiens

<400> 163
 gaattcggcc aaagaggcct aaaaatatat tttttactct gtgtcctcaa ttcccaggac 60
 aatgtctgtt cgacaaaagg tgagcgctga gtgtttgggg ttttttgttt gttttttgta 120
 ttttttgaga cagggtctcg ctttgccacc caggctggag tgcaagtgtg cacacatggc 180
 tcaactacagc ctctacctcc cgggctcaag ggatcctccc acctcagcct cccatgtagc 240
 tgggactaca ggtgtgcacc atcacacca gctaattttt gtattttttg tagagacgga 300
 actcgag 307

<210> 164
 <211> 361

<212> DNA

<213> Homo sapiens

<400> 164

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gaattcggcc aaagaggcct agaaattaaa aagtcattca acttatagtt caggagagcc 60
attctttcat tgcctcattt ttgccttttt caaaatgagg ttgaccacag atgagtctag 120
ggaggggaat gacgtgggga tcgtgacttc tgcaggggta gtcttttcca cttttccct 180
gtccatctgt tttttcttct tcttttcttt ttttctgaaa gagactctcg ctctgttgcc 240
caggctagag tgcagtggca cgatcatagc tcaactgcagc ctccaactcc tgggcgcagg 300
tgatccctct cctcagctc ctgagtggct gggacaaacg gcacatgtca ccactctcga 360
g

```

<210> 165

<211> 357

<212> DNA

<213> Homo sapiens

<400> 165

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gaattcggcc aaagaggcct atgtgtatgg tatctgtgtg aattttgact gtttctcccc 60
tctcttcttt agtcattacc cctgtttttg gttcattcct atcagtaaac aatctctggt 120
agagacttgg taagaaaact caaccattcc cttaaaaaaa gtcagcctct accccttct 180
tagccagatg cttcagggat ggtctgcttg caacacttcc tgctcttca cttctttcaa 240
ctgtttaacc tgccttattc ttttttttgt gagacggagt cttgctctgt ctcccaggct 300
ggagtgcagt ggcgcagtgt ggctcactgc aagctctgcc tcccgggttc actcgag 357

```

<210> 166

<211> 149

<212> DNA

<213> Homo sapiens

<400> 166

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ctcgaggatg tgccttactg cctttaatat gtgcatgagt tactcatggg gaaaatgcct 60
tccctttctt tctttatact tttttttttt ttttgagatg aagtttcaact cttgtcaccc 120
agactcgagg caggtctaga attcaatcg

```

<210> 167

<211> 410

<212> DNA

<213> Homo sapiens

<400> 167

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gaattcggcc aaagaggcct agaataattc accagtaaaa ctgttcaggc ctgggtgttt 60
ctgttttaaa aggttaataa ctgttgattc aattttctaa tagatacaga tctattcaga 120
ttattgatat agtttcttta atagttaaca ggtttggtca gggtatctgt ttttctttgt 180
gagaactttg gtagattgtg tctttcacag aatattggct tatttcactt tactaaattt 240
ttggtgtaca gagttgttca tagtattcct ttgttgtagt tttaatgtac ttgggataag 300
taatgatgac ccctcttcca tttgttacat tagtaatttg tgccttctct ctttttcttc 360
ttttgttttt ttggagacaa agagtctcac tgtcaccacg gcgactcgag 410

```

<210> 168

<211> 369

<212> DNA

<213> Mus musculus

<400> 168

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gaattcggcc aaagaggcct agatatttga aagacgagtt tgttctacct agcaccctag 60
ctctagctct gtcagatacg ttaatgcata catcctctct aatgcatgtt cattttattgc 120
tgcagtttgg ttcttctgga gtattttcat catttagcta ttggaataca attatgaaaa 180
ccaactgttg aacatacttg gagtagctgt ttctttccta aagaacccaa gttgttttca 240
gctaatagaa caggttgaaag tccgcctgca ttagctgtgt tttccctcat cttgttagag 300

```

ggatgcacag ggcacggtga catcatttcc ctcatgttgt tagagggatg cacagggccc 360
 ggtgtcgag 369

<210> 169
 <211> 455
 <212> DNA
 <213> Mus musculus

<220>
 <221> unsure
 <222> (29)

<220>
 <221> unsure
 <222> (38)

<220>
 <221> unsure
 <222> (60)

<220>
 <221> unsure
 <222> (399) .. (402)

<220>
 <221> unsure
 <222> (408)

<220>
 <221> unsure
 <222> (423) .. (425)

<220>
 <221> unsure
 <222> (444)

<400> 169
 gaattcggcc aaagaggcct agagctttna aagtagangg taggggtgctt tctaattctn 60
 attatttgat ccaaatgtgt aaaacagtag ctctagactg gtgaagcatt tgggacacag 120
 ttggacattt taaaagccat ttctcaagct ttaagacatt tagtacagcc ttgacagtgc 180
 tcagcagagg cgcaaatgca agcagaggcg cggccatgag gtcgggtgtcc gacactggcc 240
 gtggctggag agatgcagta atacttgtgg agtgtgagca gcagtggata ggacacgtga 300
 cgtgcacggg gccttggggag agcatgggct ggtcctgcag gactctgcat ctactgtga 360
 ctgtgcagca cattttaggc tgtgtttgaa tgtctcacnn nntactgntt agttgtcgaa 420
 tgnnngaata caagaaggag ctgngccagg tcgag 455

<210> 170
 <211> 358
 <212> DNA
 <213> Homo sapiens

<400> 170
 gaattcggcc ttcatggcct agatctgggt tgggttttct tttttaatta tccaaacagt 60
 gggcagcttc ctccccaca cccaagtatt tgcacaatat ttgtgctggg tatgggggtg 120
 ggttttttaa tctcgtttct cttggacaag cacagggatc tcgttctcct catttttttg 180
 ggggtgtgtg ggacttctca ggtcgtgtcc ccagccttct ctgcagtccc ttctgccctg 240
 ccgggcccgt cgggaggcgc catggctcgg atgaaccgcc cggccccggt ggaggacctg 300
 aagaagtacg gggctaccac tgtggtgcgt gtgtgtgaag tgacctatga ctctcgag 358

<210> 171

<211> 415
 <212> DNA
 <213> Homo sapiens

<400> 171
 gaattcggcc ttcattggcct acaagaagat ggtgtttctg cccctcaaat ggtcccttgc 60
 aaccatgtca tttctacttt cctcactgtt ggctctctta actgtgtcca ctcccttcag 120
 gtgtcagagc actgaagcat ctccaaaacg tagtgatggg acaccatttc cttggaataa 180
 aatacgactt cctgagtacg tcatcccagt tcattatgat ctcttgatcc atgcaaacct 240
 taccacgctg accttctggg gaaccacgaa agtagaaatc acagccagtc agcccaccag 300
 caccatcatc ctgcatagtc accacctgca gatattctagg gccaccctca ggaagggagc 360
 tggagagagg ctatcggaag aacccttgca ggtcctggaa cccccccgc tcgag 415

<210> 172
 <211> 297
 <212> DNA
 <213> Homo sapiens

<400> 172
 gaattcggcc ttcattggcct agcacgctgc cacacctagc tatgtatttc ttttttattg 60
 ccaagtattc cattatatgg atagaccaca tttatttagc cattcatcag ttgggtggaca 120
 tttggaccac tcagttttttt acttccaagc ataaaagtct atgaagataa agtgattaaa 180
 gatgtttttt aaatgtgatt ttttaaaaag tgacattatc agtataatct atttcagcat 240
 atcaagtaat aattatcaat aaaaattcaa aaaccggctc ttttacagat actcgag 297

<210> 173
 <211> 267
 <212> DNA
 <213> Homo sapiens

<400> 173
 gaattcggcc ttcattggcct aactgaaag ctagaaaaca atagagaagt atcttcaggc 60
 ttctgaggga aaattgtttc caaactagac caaacttatc aaatctaaga tagaataaag 120
 acattttcag atatgcgagt ccttccaaaa tttatccctt atgtacttgc tctaagggaag 180
 ctacttgatg tacaagcaaa gaaagtggaa gataatggaa tttgggaaat gggcacttca 240
 acacaagatg acacgacctg cctcgag 267

<210> 174
 <211> 288
 <212> DNA
 <213> Homo sapiens

<400> 174
 gaattcggcc ttcattggcct aagcagaggc aaaagaatta accagctctt cagtcaagca 60
 aatcctctac tcaccatgct tcctcctgcc attcattttc atctccttcc ccttgcagtc 120
 atcctaataa aaagtgtttt ggctttttaa aatgatgcca cagaaatcct ttattcacat 180
 gtgggttaaac ctgttccagc acaccccgag agcaacagca cgttgaatca agccagaaat 240
 ggaggcaggc atttcagtaa cactggactg gatcggaata cactcgag 288

<210> 175
 <211> 430
 <212> DNA
 <213> Homo sapiens

<400> 175
 gaattcggcc ttcattggcct aattcgttta tgagatggag tcacatgcc a taggaaaaaa 60
 gcctgaaaat tcagcagaca tgattgaaga aggggagctt atcctatctg tgaatatctt 120
 gtacctgtt atatttcata agcacaaaga acacaaacca taccaaacaa tgctggtgtt 180
 gggcagtc aaactcacac aactgaggga ttcaattcga tgtgtcagtg acctccagat 240
 tgggtgtgaa ttcagcaaca ctctgacca agcccttgag cacatcagca aagtaagggt 300

atttcctccc ataaaaacaaa aggaaataac aagctaagaa aatagcgatt actctagctg 360
gttcataaat gtcccagtaa atccttttct tctctgctg gattccatca aactaccaca 420
ctatctcgag 430

<210> 176
<211> 317
<212> DNA
<213> Homo sapiens

<400> 176
gaattcggcc ttcattggcct agagactctc agcaccctgc gatatgcaag ccgagctcag 60
cgggtcacca cccgaccaca ggcccccaag tctcctgtgg caaagcagcc ccagcgtttg 120
gagacagaga tgctgcagct ccaggaggag aaccgtcgcc tgcagttcca gctggaccaa 180
atggactgca aggcctcagg gctcagtggg gcccggtgg cctgggcccc gcggaacctg 240
tacgggatgc tacaggagtt catgctagag aatgagaggc tcaggaaaaga aaagagccag 300
ctgcagaata gctcgag 317

<210> 177
<211> 349
<212> DNA
<213> Homo sapiens

<400> 177
gatgggactt aagttgaacg gcagatatat ttcactgata ctgcgggtgc aaatagcgta 60
tctgggtcag gccgtgagag cagcgggcaa gtgcgatgag gtcttcaagg gcttttcgga 120
ctgtttgctc aagctgggag acagcatggc caactaccgc cagggcctgg acgacaagac 180
gaacatcaag accgtgtgca catactggga ggatttccac agctgcacgg tcacagccct 240
tacggattgc caggaagggg cgaaagatat gtgggataaa ctgagaaaag aatccaaaaa 300
cctcaacatc caaggcagct tattcgaact ctgcggcagc tggctcgag 349

<210> 178
<211> 576
<212> DNA
<213> Homo sapiens

<400> 178
gaattcggcc ttcattggcct agtaaaactct gaccagagat gacatctggt cccacaactc 60
atcagggtcta tgtacaatat ttcacatacc acccaataga taagataata ttaacagcaa 120
ccattctcct ttatcaattc cccctgctcc aatacaacca ccacacattg cattaatacc 180
ccaaacccat tcccaattta ttaaataatgg tgcaagctca tagacactta gaagaggcaa 240
atctagtgtg gatgaagagt tcttagagct ctgggagcca agatggagggt tttccagtac 300
ctgcacatgt ggctcaggag gatgctgccc aggagctaag gagttgggag agcaaacatg 360
ggagggtagaa gtcagatggc ccagctcagg gagctatctc tctcagcatc tcagctttga 420
gactctgcca ccacctcttc ccagcccaag ctgctgccta aaccaggcat gttgaagggt 480
gagcagtggt tgccatgaag ccaagaccaa gagattgctg agactccac tcccctccct 540
cagactctag gcctgtgaca agccacacta ctcgag 576

<210> 179
<211> 320
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (57)

<400> 179
gaattcggcc ttcattggcct agttccatgg gaaattcata gacacggggt tttcttnacc 60
attctataag cgtatcttga acaaaccagt tggactcaag gatttagaat ctattgatcc 120
agaattttac aattctctca tctgggttaa ggaaaacaat attgaggaat gtgatttga 180

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aatgtacttc tccgttgaca aagaaattct aggtgaaatt aagagtcatt atctgaaacc 240
taatgggtggc aatattcttg taacagaaga aaataaagag gaatacatca gaatggtagc 300
tgagtggagg ttgtctcgag                                     320

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<210> 180
<211> 583
<212> DNA
<213> Homo sapiens

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<400> 180
gaattcggcc ttcattggcct aactctgtcc aggtagaaat ggtgaggagg gggagagaa 60
ttacatttcc agggtcagaa acttggaac agttttccta gactgactca gacacaccac 120
agtaacaact ctgctgcaa ttttatttta atttgagaaa taaagatttc ctccaagcca 180
catgaggact ctggcaccac ccacaaagc aagacctgta ttataagcc gagggctcag 240
ggagcctaac tgcgggaccc gtcaggggccc cgtgacccat ccccgteccc accccccct 300
ccaccgctgg gcccatcagt gtgtgttggg gggatgcttg gcagctgggg gtgaggagac 360
aacaacacct gggaactgga gccagagctg cggcctgact gacgcctttt gatgctcacg 420
ggaaatttct gccaggatc tcagccccag gctggttgtt tctacaaatc tctctcaaat 480
gtattatttt ggtgacaaaa atgaaggagc tttgtaaatt tttttaaatt tatgaatcat 540
atcaagtagt tgtttacatt tcttgaaaaa agagcaactc gag                                     583

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<210> 181
<211> 280
<212> DNA
<213> Homo sapiens

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<400> 181
gaattcggcc ttcattggcct acaagattgg caagatgctt atttttggtg ccatatttgg 60
ctgccttgac ccagtggcaa cactagctgc agttatgaca gagaagtctc cttttaccac 120
accaattggt cgaaaagatg aagcagatct tgcaaaatca gctttggcca tggcggattc 180
agaccacctg acgatctaca atgcatactt aggatggaag aaagcacgac aagaaggagg 240
ttatcgttct gaaatcacat actgccggag gctactcgag                                     280

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<210> 182
<211> 280
<212> DNA
<213> Homo sapiens

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<220>
<221> unsure
<222> (272)

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<400> 182
gaattcggcc ttcattggcct acaagattgg caagatgctt atttttggtg ccatatttgg 60
ctgccttgac ccagtggcaa cactagctgc agttatgaca gagaagtctc cttttaccac 120
accaattggt cgaaaagatg aagcagatct tgcaaaatca gctttggcca tggcggattc 180
agaccacctg acgatctaca atgcatactt aggatggaag aaagcacgac aagaaggagg 240
ttatcgttct gaaatcacat actgccggag gntactcgag                                     280

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```

<210> 183
<211> 280
<212> DNA
<213> Homo sapiens

```

```

<400> 183
gaattcggcc ttcattggcct acaagattgg caagatgctt atttttggtg ccatatttgg 60
ctgccttgac ccagtggcaa cactagctgc agttatgaca gagaagtctc cttttaccac 120
accaattggt cgaaaagatg aagcagatct tgcaaaatca gctttggcca tggcggattc 180
agaccacctg acgatctaca atgcatactt aggatggaag aaagcacgac aagaaggagg 240
ttatcgttct gaaatcacat actgccggag gntactcgag                                     280

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<210> 184
 <211> 280
 <212> DNA
 <213> Homo sapiens

<400> 184
 gaattcggcc ttcattggcct acaagattgg caagatgctt attttttggtg ccatatttgg 60
 ctgccttgac ccagtggcaa cactagctgc agttatgaca gagaagtctc cttttaccac 120
 accaattggt cgaaaagatg aagcagatct tgcaaaatca gctttggcca tggcggattc 180
 agaccacctg acgatctaca atgcatactt aggatggaag aaagcacgac aagaaggagg 240
 ttatcggtctt gaaatcacat actgccggag gctactcgag 280

<210> 185
 <211> 280
 <212> DNA
 <213> Homo sapiens

<400> 185
 gaattcggcc ttcattggcct acaagattgg caagatgctt attttttggtg ccatatttgg 60
 ctgccttgac ccagtggcaa cactagctgc agttatgaca gagaagtctc cttttaccac 120
 accaattggt cgaaaagatg aagcagatct tgcaaaatca gctttggcca tggcggattc 180
 agaccacctg acgatctaca atgcatactt aggatggaag aaagcacgac aagaaggagg 240
 ttatcggtctt gaaatcacat actgccggag gctactcgag 280

<210> 186
 <211> 379
 <212> DNA
 <213> Homo sapiens

<400> 186
 gaattcggcc ttcattggcct agttatgcgt gaatttgacc ctggcattat gatgtagct 60
 gggtattttt ctggttagtt gatgcagttt cttcctggca tcaatggaat ttacaatttg 120
 tcatgttttg cagtggctgg tatcagttgt tcctttctat gtttatagtg cttccttcag 180
 gagctctttt agggcaggcc tgggtgtgac aaaatctctg agcatttgct tttttgtgaa 240
 ggattttatt tctccttcac ttatgaagct tagtttggtt ggatatgaaa ttctggtttg 300
 aaaattattt tctttaagaa tgctgaatat tggcccccct aggccatgaa ggccgattga 360
 attctagacc tgccctcgag 379

<210> 187
 <211> 327
 <212> DNA
 <213> Homo sapiens

<400> 187
 gaattcggcc ttcattggcct agctccactt tctctgaaaa tttattcata ttgttaatta 60
 aatttgtttt tattatagaa ataatatatt gcatgatttg taaaaatgca gaggaacaga 120
 atggcacaaa attatgtaac cttttctatc tccccttgggt gtacctcctt aatcactactt 180
 ctcagaacca ttgtcaataa tttgctggga gttcttctga tggttaccat cgtgactgat 240
 agattttattt cccaggttca agcgggtccc ctgcctcagc ctcccagata tctgggacta 300
 caggcatgca ccaccactca gctcgag 327

<210> 188
 <211> 379
 <212> DNA
 <213> Mus musculus

<400> 188
 gaattcggcc ttcattggcct aattatgaaa agtattcctt tatactgtaa gtagtttagg 60
 aaactattaa tttttatgaa taatagaact tccttctgag gttttgattt aatcaagaag 120
 aacctggaca ttttgttgct attatagtat gttctataat ttgaaagctg ccttacttca 180

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tttatttgta atgtttttat tattacattt cctttttttac agtccagctg tatcttccct 240
cccgatcccc cctcacacag ttccatcccc tgtctccaag ataatggccc cttaccaggt 300
ctccccactc cctgggggtgt caagtctctc aagggttagg tgcacatctt cttccactga 360
gaccagaaca aggctcgag 379

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<210> 189
<211> 301
<212> DNA
<213> Mus musculus

```

```

<400> 189
gaattcggcc ttcatggcct acccttctct gaggatggac acttctcaca ctacaaagtc 60
ctgtttgctg attcttcttg tggccctact gtgtgcagaa agagctcagg gactggagtg 120
ttaccagtgc tatggagtcc catttgagac ttcttgccca tcaattacct gcccctacct 180
tgatggagtc tgtgttactc aggaggcagc agttattgtg gattctcaaa caaggaaagt 240
aaagaacaat ctttgcttac ccatctgccc tcctaataatt gaaagtatgg agtgcctcga 300
g 301

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<210> 190
<211> 317
<212> DNA
<213> Mus musculus

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<400> 190
gaattcggcc ttcatggcct aaagaaacct ggataacatt gtcttgcaac agcctagaat 60
aggtagcaaa aggaaatcta agaaagatgt ttatacaatc ttgatgcag aggtggagag 120
cacaagtcca aagtcggaac aggattcggg aattctggat gtggaagacg aggaagatga 180
tgaagaggta cctggggctc aagacttggg ggatttctct cctgtgtatc ggtgtctaca 240
catatattct gtcctgggtg cccgtgaaac atttgagaat tactaccgaa aacagaggcg 300
aaaacaggcc cctcgag 317

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```

<210> 191
<211> 295
<212> DNA
<213> Mus musculus

```

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<220>
<221> unsure
<222> (215)

```

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<220>
<221> unsure
<222> (222)

```

```

<220>
<221> unsure
<222> (233)

```

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<220>
<221> unsure
<222> (237)

```

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<220>
<221> unsure
<222> (241)

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<220>
<221> unsure
<222> (245) .. (246)

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<220>
 <221> unsure
 <222> (249)..(250)

<220>
 <221> unsure
 <222> (253)

<400> 191
 gaattcggcc ttcattggcct acacttggag atttctatgg gtgggttggct ttgggttgggt 60
 tcttttatca ttaaaagaag aatgggagcc gggcgtgggtg gcgcacgcct ttagtccttag 120
 cactcgggag gcagaggcag gcagatttct gagtttgaga ccagcttgggt ctacaaagca 180
 agttccagga cagccagggc tacacagaga aatcntgtct cnaaaaacaa ganaganaga 240
 naganngann ganagagaga gagagagaga gagagagaga gagacacccc tcgag 295

<210> 192
 <211> 307
 <212> DNA
 <213> Mus musculus

<400> 192
 gaattcggcc ttcattgccta gggccctgca gtcccagctc tgtgcaaacc taaccccgag 60
 caacaccatg aagctctgcg tgtctgccct ctctctctctc ttgctcgtgg ctgccttctg 120
 tgctccaggg ttctcagcac caatgggctc tgacctctcc acttctctgt gtttctctta 180
 cacttcccgg cagcttcaca gaagctttgt gatggattac tatgagacca gcagtctttg 240
 ctccaagcca gctgtggtat tcctgaccaa aagaggcaga cagatctgtg ctaacccggt 300
 gctcgag 307

<210> 193
 <211> 502
 <212> DNA
 <213> Mus musculus

<400> 193
 gaattcggcc ttcattggtag gccatggtga aatcactggt aaggagaaaa catctgaaat 60
 ggaattcaag tatctggtct tcattgtgct ttgtcaatac ctggacaata cgtttttctc 120
 agagacagaa gcaattacaa cagagcagca atcactgtct acttttaata caccgtcgtt 180
 atatgttaca actgattctc aaaacacagc aggggaatgct ttgagtcaga caacaagatt 240
 caagaacatt tcttctggac agcaagcatc acctgcccac atcactcctg aacaagcaac 300
 accagctggt tatgtctctt caagccact tacttataac attaccagac aagcagaatc 360
 agcgggtcaac aactccttgc ctcaaacatc accatctggg ttacttttga ccaatcagcc 420
 atcaccttct acctataatt ctactggaca accacacaaa catcttgtct atacttccac 480
 acaacagcca ccaatactcg ag 502

<210> 194
 <211> 427
 <212> DNA
 <213> Mus musculus

<400> 194
 gaattcggcc ttcattggcct acaagaggag cctagggagt ggcagctctc gctgaccggc 60
 ggggtcccaga gacctgcccc caaggtgtcc cactgtgtgg ctaaggggtg gatagaaccc 120
 gggctgggag agccgggtta tgggttccag tgggtgttcc gccgcttcc tgcctcgtc 180
 tgtcttacct cggcgttcag cctatttttc ctcgtaagaa ttggacactt ttccgtgccc 240
 ctccataacc gcaggtgggtg ttctgtagagg ctctcacgct tttcaaaagg cgtctcatct 300
 aagattttgct agaaccaacc tgactaaagg agtcaccgtc atacccccc tgcacctgga 360
 gtaaattctga ctgtccgaag gacgaaggac cgggtctgtga gcacttgtgc taaggtggac 420
 gctcgag 427

<210> 195

<211> 197
 <212> DNA
 <213> Mus musculus

<220>
 <221> unsure
 <222> (28)

<400> 195
 gaattcgggcc ttcattggcct acaagttnac agtgcacacc aagaccacac tgtccacatt 60
 tcagagccca gagttttctg ttacaaggca acatgaagac tttgtgtggc tgcattgacac 120
 tcttactgaa acaacggatt atgctggcct tattatccct cctgctccta caaagccaga 180
 ctttgatggc cctcgag 197

<210> 196
 <211> 483
 <212> DNA
 <213> Mus musculus

<220>
 <221> unsure
 <222> (49)

<400> 196
 gaattcgggcc ttgaaaagaa tagacctggc ttgtgaatta tggcctggnt ttcacttata 60
 ctctctctcc tggctctcag ctcaagggcc atttcccagg ctgttgtgac tcaggaatct 120
 gcactcacca catcacctgg tgaacagtc acactcactt gtcgctcaag tactggggct 180
 gttacaacta gtaactatgc caactgggtc caagaaaaac cagatcattt attcactggc 240
 ctaatagggtg gtaccaacaa ccgagctcca ggtgttcctg ccagattctc aggctccctg 300
 attggagaca aggctgccct caccatcaca ggggcacaga ctgaggatga ggcaatata 360
 ttctgtgctc tatggtacag caaccattgg gtgttcggtg gaggaaccaa actgactgtc 420
 ctaggccagc ccaagtcttc gccatcagtc accctgtttc cacccttcctc tgaagagctc 480
 gag 483

<210> 197
 <211> 364
 <212> DNA
 <213> Mus musculus

<400> 197
 ggaagaaccc atgggactcc caaggcggct gctgctgctg ctgttgctgg cgactacctg 60
 tgtcccagcc tcccagggcc tgcagtgcag gcagtgtgag agtaaccaga gctgcctggc 120
 agaggagtgt gctctgggcc aggacctctg caggactacc gtgcttcggg aatggcaaga 180
 tgatagagag ctggagggtg tgacaagagg ctgtgcccac agcgaaaaga ccaacaggac 240
 catgagttac cgcattgggt ccatgatcat cagcctgaca gagaccgtgt gcgccacaaa 300
 cctctgcaac aggcccagac ccggagcccg aggccgtgct tccccccagg gccgttacct 360
 cgag 364

<210> 198
 <211> 464
 <212> DNA
 <213> Mus musculus

<400> 198
 gaattcgggcc ttcattggaat tatggcctgg atttcactta tactctctct cctggctctc 60
 agctcagggg ccatttccca ggctgtgtg actcaggaat ctgcactcac cacatcacct 120
 ggtgaaacag tcacactcac ttgtcgtca agtactgggg ctgttacaac tagtaactat 180
 gccaaactgg ccaagaaaaa ccagatcatt tattcactgg tctaataagg ggtaccaaca 240
 accgagctcc aggtgttcct gccagattct caggetccct gattggagac aaggctgccc 300
 tcaccatcac aggggcacag actgaggatg aggcaatata ttctgtgct ctatggtaca 360

gcaaccattg ggtgttcggt ggaggaacca aactgactgt cctaggccag cccaagtctt 420
cgccatcagt caccctgttt ccaccttcct ctgaagagct cgag 464

<210> 199

<211> 316

<212> DNA

<213> Mus musculus

<400> 199

gaattcggcc ttcattggcct aagggtctct gtctgtgtgt gtgtgcttat cctgtctggt 60
gattatacac cccttaactc ttaatttggg accatattga atggctctta tctgttctgt 120
tttaatcttt ttctcctttt tttgctgggc tttgacagtc ccatgtgaga catcctcgct 180
gcacccaggt gtctctgact ctcttccatt ttccatcctt tttgtttcca tgctttcaac 240
tgacagtgtc ccttattccc atgttcttga ctctcactc cgtgtctccc aaccgcctgt 300
acccgcttgt ctcgag 316

<210> 200

<211> 367

<212> DNA

<213> Mus musculus

<400> 200

gaattcggcc ttcattggcct ataggccatg aaggccggcc ttcattggcct acagagagca 60
acttagtgac tgaattctca ggacatagtc tttggcctcc atttgcctct ctccgcagag 120
tttgggtctc tcagttggtg tctgaagatg tgagaacaat tttagggtgc agagtttga 180
ggaatttata agaaaacact gtctttgtct tgcttgcctt tgtagtctt ccttgacttc 240
tgactctggg tcattcggaa cctctatttc gtacatggcc ctgtttctcc atccttatca 300
cataggcacc tcagcagaag tgctatgaca taggattaca gcaacgatgg cctcatcaat 360
cctcgag 367

<210> 201

<211> 438

<212> DNA

<213> Mus musculus

<400> 201

gaattcggcc ttcattggcct aggagctaag agaaagtaaa gtacttattt cagtccactt 60
ctgacagacc tttccactgt acctgcagcc agcccttctc caaggatgga cacttctcac 120
gcgataaagt cctgtgtgct gatccttctt gtgacctac tgtgtgcaga aagagctcag 180
ggactggagt gttaccagtg ctatggagtc ccatttgaga ctcttgcctc atcatttacc 240
tgcccttacc ctgatggatt ctgtgttgcct caggaggaag aatttattgc aaactctcaa 300
agaaagaaag taaagagccg ttcttgccat cctttctgct ctgatgaaat tgaaaagaag 360
tttatcctgg atcctaacac caagatgaat atttctgtt gccaggaaga cctctgcaat 420
gcagcagtc cactcgag 438

<210> 202

<211> 321

<212> DNA

<213> Mus musculus

<400> 202

gaattcggcc tcatggccta caaagtagag gaactgctaa agaaccctt gaagattcta 60
gtgctgatta actgcctggg catgtacgac tggctccctg ccaacaaatg cgtcctccac 120
atgttggttt ttggaaccac agttttcggt tctggtctg agaagcattt caagtacctt 180
gagaagatct atagcctgga gatctttggc tgttttgcct tcaccgaact gagtcatggg 240
agtaatacca aggccatgag aacgacagct cactatgatc ctgatactca ggaattcact 300
ttacattccc cggatctcga g 321

<210> 203

<211> 307

<212> DNA

<213> Mus musculus

<400> 203

```

gaattcggcc ttcatggcct acaaaattgg caagatgctc attttcggag ccatatttgg 60
ctgtctcgaa ccagtggcaa cactggcagc cgtgatgaca gagaagtctc cattcatcac 120
accaattggg cgaaaggatg aagcggacct tgcaaagtcg tctttggctg tggccgactc 180
ggaccacctc acgatctaca atgcttatct aggggtggaag aaagcccagc aagaaggagg 240
cttcgctctc gagatctcat attgccagag gaacttccta aacagaacgt cactgttgac 300
actcgag                                     307

```

<210> 204

<211> 278

<212> DNA

<213> Homo sapiens

<400> 204

```

gaattcggcc ttcatggcct aggacaactg gtaaaacttg aatggggtct gagaatttagc 60
tggtagtaat gtatcagtgt taacatttta attttaatag ttttatattg tggttatata 120
ggagattatc ctggttcata ggaaatacaa agtttcaagg ggttgggact atcatatctg 180
caacttaatc ttgtgaaagg aaagtaagtc ttgggacccc aaaatcatta aactaaaggg 240
ataagtcaag ctggaaactg cttegggtcaa acctcgag                                     278

```

<210> 205

<211> 436

<212> DNA

<213> Homo sapiens

<400> 205

```

gaattcggcc ttcatggcct acgaacagga gagactaccg gcgaagagga aatcttttct 60
gaaggaggag actgctgatg gataaatcct gggaaaaaat cagccaagtt cttcaagtct 120
ataacgtggc acctgatcct tgacctagct tgctgacatc ttttgaaagt ggggtgagttc 180
tgcaagggtg agatcaagca ccagcagatt tggtgactat tgagggccta ttcctgggtc 240
atagatgtca ccttctggct gtttcctcac atgggtggatg gagcaagcta gccctctggg 300
gtctctttta taaagtctgg cggggacctt caacaatata agagtcaggc taagcaactc 360
tttcgaaagt tgaatgaaca gtcccttacc agatgtacct tgggaagcagg agccatgact 420
tttcactact ctcgag                                     436

```

<210> 206

<211> 467

<212> DNA

<213> Homo sapiens

<400> 206

```

gaattcggcc ttcatggcct acttctgtta attccagcac tctgaaagc ccaggcagga 60
ggatcatttg agcccaggag tttgagacca acctgggcaa aagggaaga ctcagtctct 120
gccaaaaaaa aaaaaaatta gttgggcatg gtgctgcaca cttacattcc cagctactca 180
ggaggctaag gcaggagaat cccttgagcc ctggaatttg aggcagcagt gagctatgat 240
tgcaacactg cactccagcc tgggcaacaa agcgagtccc tgtctcttaa aaaaaataata 300
acagaagtcc tagaaaagt ttgtgttgta ttactttta cattaaaagt atatggcatg 360
ttgagcagcg taaatataga aaagtgtagg gaagactgag caggaaagta tccttttgga 420
ctgaaagacc tcaggaagtc ttattccttt gatggcacia tctcgag                                     467

```

<210> 207

<211> 260

<212> DNA

<213> Homo sapiens

<400> 207

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gaattcggcc ttcatggcct agttttataa gccaatTTTT ggagtaaaaa gtgaagcatt 60

```

```

tgacttttca ttttcagaat ttgttccctt attgggcagc aaacctcagc ctcaatatgc 120
atattttctt gtattttctt tctatttttg gggacagtgt ctcattctgt caccaggt 180
ggagtgcagt gacacgatca tgggtcactg aaacctcaac ttccttggt ctagtaatcc 240
tcccacctcg gcctctcgag                                     260

```

<210> 208

<211> 362

<212> DNA

<213> Homo sapiens

<400> 208

```

gaattcggcc ttcattggcct agtccccca caaattcatg cagatacaat ttgggagagg 60
atttctctcc agctctagat ataggcctgt aggagcctgg tcattctgta tttcccttac 120
aaagaattct cgtagggtccc agaagtacct ggatgcttca tgaaatttta attggacatt 180
tcttaaaata tcaattcatt aaatcgtgtg tgcctattta catgggtggat agttctacaa 240
tatgggtccc tttctgccc ttgaaaacca tctttgtggc cgggcacggt ggctcatgcc 300
tgtaatccca acactttggg aggctgaggt ggggtggatca cctgggggta ggagttctcg 360
ag                                                         362

```

<210> 209

<211> 328

<212> DNA

<213> Homo sapiens

<400> 209

```

ggagctgcgc atggatttta tattggaaga catggatctt gctgccaacg agatcagcat 60
ttatgacaaa ctttcagaga ctgttgattt ggtgagacag accggccatc agtggtggcat 120
gtcagagaag gcaattgaaa aatttatcag acagctgctg gaaaagaatg aacctcagag 180
accccccccg cagtatcctc tcttatagt tgtgtataag gttctcgcaa cctgggatt 240
aatcttgctc actgcctact ttgtgattca accttcagc ccattagcac ctgagccagt 300
gctttctgga gctcacacgg cactcgag                                     328

```

<210> 210

<211> 487

<212> DNA

<213> Homo sapiens

<400> 210

```

gatttgcaca gttcttgcca gaataaatgc cattatctgt atgtttcagg gagttcccca 60
atttgatcat tttgtgtgt gtgtggtgtg tgtgtgagag agagagatac tgcagtaaaa 120
catttctaaa ggatgaaaagc tcttgtagtg catagatatg aattccttcc tctggtaata 180
attagggttat tcccagaagc acagtgtcat tctttaaata aaagctttcc tgtttaaagc 240
ttttcaaagg agcagaccac cttgaagatt ccccttaggg ttgatatgtg tctaattcat 300
tttataaaaa ttattcttgt cttcatttta aagctttggc tatatagtca gaaatgtcct 360
aaataacaaa ctattttgta ttaatttag ggaagactaa agggaagaaa aatgaaaact 420
cagtccttat gtaagctcca aggatattag ggcctaaagg gcttttctag ttttatgaga 480
tctcgag                                                         487

```

<210> 211

<211> 390

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (108)

<220>

<221> unsure

<222> (121)

<220>
 <221> unsure
 <222> (137)

<220>
 <221> unsure
 <222> (357)

<400> 211
 gaattcggcc ttcattggcct agttttatat atatagatat atagatacac acacacacac 60
 acacacacac acacacacac acacacagat tctgaattat acatgganac acaaactaga 120
 ntggccaaaa caatttngag aaagaacaat aatttggagt actcctatta tctaattgta 180
 agaatgacta taaagctaca gtaattagtg ctatattgac aaaaggctag ccacaaacct 240
 atgaaacaga aacaagtcca gagatacacc cataaaaata tggtaaaactg atacttgaca 300
 tgtccaaaaa caatgaatgc aaaaaggata atcttttcaa caaatgggat tgggaacnatt 360
 ggacattcac atactctccc cccctcgag 390

<210> 212
 <211> 322
 <212> DNA
 <213> Homo sapiens

<400> 212
 gaattcggcc ttcattggcct aaattggccg ggtgtggtgg cgcattgcctg tggcccagc 60
 tacttgggag gctgaggtgg gaggatggcc tgggcccagg aggtggaggt tgcagtgagc 120
 cttgatagca ccactgcact ccagcctggg tgacggagcg agaccctgtc tcaaaacaga 180
 caaacaagca aaaaataggt taaagtctgg atttcaactga ttttcttctg taataagttt 240
 tttaaaacca cgatgctgca atttttccc tctcaagctt cttgaaaatg tgtgatttac 300
 ccttttttat ctattactcg ag 322

<210> 213
 <211> 290
 <212> DNA
 <213> Homo sapiens

<400> 213
 gaattcggcc ttcattggcct aagaaaactt tcagccagaa atagccaaag tcactcttgg 60
 tcatcacacc aaactttgat tctcaccaca acacacattt cactctttga ttctcttttt 120
 tcccagttag ttgttggctg aatgatcagt ctatttattt tatatatatc taggcattta 180
 catatccatt catctacttc tctttctatc cacctactta tgtatccatc catccatcca 240
 tccatccatc cattcatcca ttcaccattg aattctagac cagcctcgag 290

<210> 214
 <211> 216
 <212> DNA
 <213> Homo sapiens

<400> 214
 tgaggagcat ggtcgccaat cccacagctc ctctctcttt gccagtggca ccctccagga 60
 cagctggagg ttgctagacc tgggatccag ccttctctgt gtcacctccc agggtgactc 120
 aactccagag ctcccagctc ctccagcagc cgacaggagg cccgtcaaga tgcaggcagg 180
 tattgccacc ccagggatga agacagcacg ctcgag 216

<210> 215
 <211> 442
 <212> DNA
 <213> Homo sapiens

<400> 215
 gaattcggcc ttcattggcct actcttagat agaaaactgg accagcctct acggatgtcg 60

```

atgctctgtt tcttggtttt gcttctctgt aaatctgagg gagaagacag gaaggacctg 120
gggtgcagcc cttctttgcc tgtctcatag gagatcctca cctcactttg tgaaaaccca 180
tgctgtctgt aatgatccca aaagctgctg caaaatacct caatataaaa gacatgttaa 240
cctggacgtg gtggctcacg cctgtaatcc cagcactttg agaggccgtg gggggtggat 300
cacttctttg gtcacctgaa gtccaggact tcaagaccag cctgggcaac acggcaaaac 360
cccattctta ccaaaaaata caaaaattat tcaggcatgg tggatatatg atatagtccc 420
agctactagg acgaggctcg ag 442

```

<210> 216

<211> 313

<212> DNA

<213> Homo sapiens

<400> 216

```

gaattcggcc ttcattggcct actgaggcag gagaatggcg tgaacccag aggcggggct 60
tgcagtgcgc cgagattgag cgactgtact ctaccctggg tgacagagcg tgactccatc 120
tcaaaaaaaa aaaaataaat aaaaaactaa atgttaaaag gagatttctt ttaatataga 180
aagtagtcgt ctttttttgt tattcttttt ttcttaatat gctttaagtt agtccataga 240
atggactttg ttctttttgg gggttaatagc taaaatattt aaagcaatga aactgaaagg 300
gtcagtactc gag 313

```

<210> 217

<211> 284

<212> DNA

<213> Homo sapiens

<400> 217

```

gaattcggcc ttcattggcct atgaattaac agcttctcta tttgatattt gaaattcttc 60
tgtaagcctg tctgagtgtg tgtggaaacg attgtcaaat ctaaaatata tatatattaa 120
aaagtaggaa attgtcctag cttaccctaa atttcaaatc tgagttagtt ttgtgatttt 180
attgcttata acagagaact catatttgac atattttttt cattgatgtg ttcttggtag 240
attttcacga atgagctggc aggtctaatac ggggaggcct cgag 284

```

<210> 218

<211> 326

<212> DNA

<213> Homo sapiens

<400> 218

```

gaattcggcc ttcattggcct agaacctggg ccgcatgtat ctcttctatg gcaacaagac 60
ctcgggtgcag ttccagaatt tctcaccac tgtggttcac ccgggagacc tccagactca 120
gctggctgtg cagaccaagc gcgtggcggc gcagggtggac ggcggcgcgc aggtgcagca 180
gggtgctcaat atcgagtgcc tgcgggactt cctgacgccc ccgctgctgt ccgtgcgctt 240
ccggtacggt ggcgcccccc aggcctcac cctgaagctc ccagtgaacca tcaacaagtt 300
cttcacgccc accgagatgg aggcag 326

```

<210> 219

<211> 530

<212> DNA

<213> Mus musculus

<220>

<221> unsure

<222> (26)

<220>

<221> unsure

<222> (379)

<220>

<221> unsure
<222> (414)

<220>
<221> unsure
<222> (429)

<220>
<221> unsure
<222> (437)

<400> 219
gaattcggcc aaagangcct attgaagaag aagagagaac cttaccatgc tattagagca 60
tgctgattca agttctactt ctggtgaaag ttctagtac acaagcagca acttctctca 120
ggctcagtagc agtcagagat cagttccttc tgtataattt acagagaatt tttaaacttg 180
cggggaaaga tgtacgacct agattgtata gggagaaggg agcgtcttag ctgcatagtt 240
ctaatttgta taagcaccat gccatgtttt tcattgtttg ccctttatat atgaaaatac 300
ttacacttaa aagcattgtt gtttagtttc aaaatctcaa cttataacca ttcacaaaatt 360
taataagggc gttgtcatna cataaaacta attgggaaat aatcccatct atcnggacag 420
ttctctggna tagtaanaca tgcgttctct aagcttctac cttttaaaca gctttgttct 480
aattactccc tttgtacctt tccatttctc agtaaaatta catactcgag 530

<210> 220
<211> 507
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (360)

<400> 220
gaattcggcc aaagagccaa cactgagcaa atcagccgcc gacagtccca agtggatcgc 60
ctctatgtgg cgctcaagga gctgggagag gaacgcaggg tgagcctgga acagcagtag 120
tggctctacc agctcagccg ccagggtgat gagctggaac actggatagc cgagaaggag 180
gtggtagctg gctccccaga gctgggagag gacttcgaac acgtgtcggg gctacaggag 240
aaattctcag agtttgccag tgagacagga accgcagggc gggagcggct ggcggcgggc 300
aaccagatgg tggacgagct gattgagtggt ggtcacacag cagcggccac catggctgan 360
tggaaggacg ggctgaacga ggctgggct gagctgctgg aactcatggg caccggggcc 420
cagctgctcg ctgcctctcg ggagctgcat aagttcttca gcgatgccc ggagcttcaa 480
gggcagattg aggagaggcg actcgag 507

<210> 221
<211> 382
<212> DNA
<213> Mus musculus

<400> 221
gaattcggcc aaagaggcct atcgagccct ggccaactcc gacggtgagg gaagtagtcc 60
tagttcaagc cccgtggagc tccggtggcg gtctcggggc ccagccagcc caggggttag 120
gtaggggagc ctcaaggggc tctggggccc accaggaaag gagccgtgga ggctgacgtg 180
ctcgctactc tcccaaccca agatccgagg cggcgtcagg cctcgtgcag ccgggtgggtc 240
tcagctgtgc aggtccaca gacctgttca tctccacac ccgtgcacc aggtgtggct 300
ttaaggggag aaggtccaga gaggtgaggt gtgtggagag gatgcccaaa ctgcagggtt 360
ttgagttttg gggccgctcg ag 382

<210> 222
<211> 194
<212> DNA
<213> Mus musculus

<400> 222

gaattcggcc aaagaggcct aggtaaagtg ggcagaaaaa acagagagca ggaaatgttt 60
 tattttatcct tttttggttt gtttggtttg gttttgtgtt ttcaagacag ggtttctctg 120
 ggtaaccttg gctgtcctga aactcactct gtagaccagg ctggccttga actcacagat 180
 cccactgtct cgag 194

<210> 223

<211> 477

<212> DNA

<213> Mus musculus

<400> 223

gaattcggcc aaagaggcct agacacggtg gcttccgaca tgatggttct cctgaaatcc 60
 ttctttgatt gccataaaga attccagacg gtccattctt acattttctc agaatcctac 120
 ggaggaaaga tggctgctgg catcagtgtg gaactttaca aggctgttca gcaagggacc 180
 attaagtga acttttctgg ggttgctttg ggtgactcct ggatctcccc cgtggattca 240
 gtgctgtcct ggggacctta cctgtatagt atgtctctcc ttgataatca aggcttggcc 300
 gaggtgtccg acattgcaga gcaagtcttc gatgctgtaa acaagggctt ctacaaggag 360
 gccactcagc tgtgggggaa agcagaaatg atcattgaaa agaaccacca cggggtaaac 420
 ttctataaca tcttaactaa aagcagcccg gagaaagcta tggaatcgag cctcgag 477

<210> 224

<211> 389

<212> DNA

<213> Mus musculus

<400> 224

gaattcggcc aaagaggcct acggtgaagc aagagctgcg tgggccctga gtgggggagg 60
 gacggcagcc cttggagtgc caccagtgct ctctgccggc aggagaggag ggggagtatg 120
 tcctggcact gaagcaagag ctgcgcgggg ccattgaggca gctccccctac ttcatccggc 180
 cagccgtccc caagagagat gtggaacgtt actcagacaa gtatcagatg tctgggccta 240
 ttgacaacgc catcgattgg aaccctgatt ggcggcgact ccccagtgag ctcaagattc 300
 gagtgcggaa agtacagaag gagcggacca ccattatcct tcccaagagg cccctaaga 360
 gcacagacga taaggaggag taactcgag 389

<210> 225

<211> 423

<212> DNA

<213> Mus musculus

<400> 225

gaattcggcc aaagaggcct attatagagt atgtggtttg ttgtcaaatg cttgaggctg 60
 ttgctgttag aattaacaga ggcactaaaa ttggaaggaa aaaaagcttt atttgaaaaa 120
 aatggagatg ggaataatac agtggagatc gtgaatacat ggactcagag ctgtgttgat 180
 gggagatcta ataattggaa ttctgaaatg tgtggtcact ttctcttctt gctcttgggg 240
 atgatttaca ttttaagcc aaggaggcaa aagagaaaaga aacagcaaag tgtgggtgaag 300
 tggaaactcaa aacatttata ttttaatttt catagtgtcc tgtatttctg ggtctctctc 360
 ttcaagccat ctgctgcctc tgaaggcatt tccaccagg cttcttgtcc ccaccaactc 420
 gag 423

<210> 226

<211> 379

<212> DNA

<213> Mus musculus

<400> 226

gaattcggcc aaagaggcct agagacggtg gacaagcgcg agaaactggc ggagggcgcg 60
 accgtggtca ttgagcattg tacgagctga cgcgtgtacg gccgccatgc tgctgccttg 120
 agccaggctc tgcaactgga ggccccagag ctacctgtgc aagtgaacct gtccaaaccg 180
 cggaggggca gcttcgaggt gacgctgctg cgctcggaca acagccgtgt tgaactcttg 240

actggtatta agaagggccc tccacgaaag ctcaaatttc ctgagcctca agaggtggtt 300
 gaagaattga agaagtacct ttcataaaga ggttgggaaa gagtccctcat gttgagcttt 360
 cagtccttgg aggtctcgag 379

<210> 227

<211> 113

<212> DNA

<213> Mus musculus

<400> 227

gaattcggcc aaagaggccg tcggggaaaa aaagagcgag agcgccagct atcctgaggg 60
 aaacttcgga gggaaccatc tactagatgg ttccctccca agtttccctc gag 113

<210> 228

<211> 379

<212> DNA

<213> Mus musculus

<400> 228

gaattcggcc aaagaggcct atttgacta agtctagaga gttctagtca atcatagtta 60
 gagtagatta gtttatacat taggtcaata ttcagttatc agtgagggat cttaggaagg 120
 ggagctctac agattgtacc tgttactagt gattttggca ggaagggttaa actattcata 180
 taagctttta attatttaac gaagattaat tcttggtatt agtttgattc tctttccaaa 240
 tttattatta aagccagtta ggaagggtta gggattacta ttattgaatc tcatactgtt 300
 atattacaac atgttagcag atctgttttt aaattttgtt tgtttttttg cttttgtagg 360
 ttgccatgga gtcctcgag 379

<210> 229

<211> 410

<212> DNA

<213> Mus musculus

<400> 229

gaattcggcc aaagaggcct acaaaaggac ttttgataac agtttcaaga ttgtcagcat 60
 ttgtcatttg acttgagctg aggtgctttt aaaatcctaa cgactagcat tggcagctga 120
 cccagggtcta cacagaagtg cattcagtga actaggaaga caggagcggc agacaggagt 180
 ccgaagcca gtttggtgaa gctaggaagg actgaggagc cagcagcagc agtgcattgt 240
 gaagatagcc caggaaaagag tgcggttcg tggaggaagc taggaagaag gagccatacg 300
 gatgtggtgg tgaagctggg aaagggttcc aggatggtgg agcgagagcg agttggtgat 360
 gaagctagct ggcggcttgg cttgtcaact gcgcggaaga ggtactcgag 410

<210> 230

<211> 367

<212> DNA

<213> Mus musculus

<400> 230

gaattcggcc aaagaggcct ataggcctct ttggccgaat tcggccaaag aggcctaacc 60
 tgccttgcca ccctggccac agtgctgctg gctctggcca gaagaagccc ccaggcacag 120
 atgcagatca agcaacagaa ttctggggtg aggtgccag gcacctttta agcaaagcct 180
 acaggctgtg gacatcccca tctacagaaa gtccactaca accaagagga caagctccct 240
 cctgggcagg ctaaggaaact gccagggtt caagggtgtc agtgtttcgt actctcagga 300
 tcctatctag ttcagtccca gccctcagtg ggctagggtca gtgtggctgg cgctcagtg 360
 tctcgag 367

<210> 231

<211> 393

<212> DNA

<213> Mus musculus

<400> 231
gaattcggcc aaagaggcct aggatgtggg ggtgcggtcg gcgcaggctt cctaccttgt 60
ggagtccgtc cgtgcgtccg tgcgtcccgt gggcatggca gagacatctt gaccgcggcg 120
tccgcttctg cgcgcgtggg tgacgtcgtt gggggcgscg gccgtgactg gcggacgctg 180
aacagagaaa cacgggttag actttccatt cagcccccac gaaaaactta caacaaaatt 240
ataaattaaa ttaaattaaag aattaaatta' caaataagga caagaataat tagggcagaa 300
accatagctg cggctaaaag agaaaccctg tctccaaaat caaaaattaa aattaaaaaa 360
taaaccctaaa tgaaaataag aataatactc gag 393

<210> 232
<211> 650
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (286)

<400> 232
gaattcggcc aaagaggcct actcagaaaa cacagagctt tagctccgcc aaaatgaaac 60
actcattaaa cgcactttctc attttctctca tcataacatc tgcgtggggg gggagcaaaag 120
gcccgcgtgga tcagcttagag aaaggagggg aaactgctca gtctgcagat ccccgatggg 180
agcagttaaa taacaaaaac ctgagcatgc ctcttctccc tgcgacttc cacaaggaaa 240
acaccgtcac caacgactgg attccagagg gggggaggac gacgantatc tggacctgga 300
gaagatattc agtgaagacg acgactaaca tcgacatcgt cgacagtctg tcagtttccc 360
cgacagactc tgatgtgagt gctgggaaca tcctccagct tttcatggc aagagccgga 420
tccagcgtct taacatcctc aacgccaaagt tcgctttcaa cctctaccga gtgctgaaag 480
accaggtcaa cactttcgat aacatcttca tagcaccctg tggcatttct actgcgatgg 540
gtatgatttc cttagggtctg aaggagagaga cccatgaaca agtgcactcg attttgcat 600
ttaaagactt tgtaaatgcc agcagcaagt atgaaatcac gaccctcgag 650

<210> 233
<211> 465
<212> DNA
<213> Mus musculus

<400> 233
gaattcggcc aaagaggcct aaagaaacaa gaggctggag attgtcaaat tcagtatccc 60
agttggctct tgattcttgg tgaaaccatc cctcagctcc tagagggaga ttgttagatc 120
atgaaactaa ttaccatcct tttctctctg tccaggctgc tactaagttt aaccaggaa 180
tcacagtccg aggaattga ctgcaatgac aaggatttat ttaaagctgt ggatgctgct 240
ctgaagaaat ataacagtca aaaccaaagt aacaaccagt ttgtattgta ccgcataact 300
gaagccacta agacgggttg ctctgacacg ttttattcct tcaagtacga aatcaaggag 360
ggggattgtc ctgttcaaag tggcaaaacc tggcaggact gtgagtacaa ggatgctgca 420
aaagcagcca ctggagaatg cacggcaacc gtgggggttac tcgag 465

<210> 234
<211> 304
<212> DNA
<213> Mus musculus

<400> 234
gaattcggcc aagtaaaagc agggagaact ctttatctga gccatgttcc tatctcctgg 60
aacgcttcta tgcacctttc tcttccccac actttttctg aggggtgacag ccagagaacc 120
agtctttgta gagaataaac cttttgtaca gcataatagta gaattctcaat acatggaatt 180
aagagaaaga ctttaggaag aaaccattcc caccaatgga agaaatcaac ttgttcacag 240
aggatccacc aaacgaagaa aattcatata cagtcagcta ccgacagaca caccagagct 300
cgag 304

<210> 235

<211> 570
 <212> DNA
 <213> Mus musculus

<220>
 <221> unsure
 <222> (32)

<220>
 <221> unsure
 <222> (168)

<400> 235
 gaattcggcc aaagaggcct acgagagagg angtgctgca agactctctg gtagaaaaat 60
 gaagaggggtc ctgggtactac tgcttgctgt ggcatttgga catgctttag agagagccgg 120
 gattatgaaa agaataaagt ctgcaaggaa ttctcccatc tgggaaanga ggacttcaca 180
 tctctgtcac tagtctgtga cagtagaaaa ttcccagtg gcacgtttga acaggtcagc 240
 caacttgtag aggaagtgtg ctccctgacc gaagcctgct gtgcggaagg ggctgaccct 300
 gactgctatg acaccaggac ctccagcactg tctgccaagt cctgtgaaag taattctcca 360
 ttccccgttc acccaggcac tgctgagtgc tgcaccaaag agggcctgga acgaaagctc 420
 tgcattggctg ctctgaaaca ccagccacag gaattcccta cctacgtgga acccacaat 480
 gatgaaatct gtgaggcgtt caggaaagat ccaaaggaat atgctaatac atttatgtgg 540
 gaatatccca ctaattacgg acgactcgag 570

<210> 236
 <211> 702
 <212> DNA
 <213> Mus musculus

<400> 236
 gaattcggcc aaagaggcct agaagaacat ttctagggaa taatacaaga agatttagga 60
 atcattgaag ttataaatct ttggaatgag caaactcaga atgggtgctac ttgaagactc 120
 tggatctgct gacttcagaa gacattttgt caacctgagt cccttcacca ttactgtggt 180
 ctactttctc agtgctgtt ttgtcaccag ttctcttgga ggaacagaca aggagctgag 240
 gctagtggat ggtgaaaaaca agtgtagcgg gagagtggaa gtgaaagtcc aggaggagtg 300
 gggaacgggtg tgtataatg gctggagcat ggaagcggtc tctgtgattt gtaaccagct 360
 gggatgtcca actgctatca aagcccctgg atgggctaata tccagtgcag gttctggacg 420
 catttgatg gatcatgttt ctgtctgtgg gaatgagtea gctctttggg attgcaaca 480
 tgatggatgg ggaagcaca gtaactgtac tcaccaacaa gatgctggag tgacctgctc 540
 agatggatcc aatttgaaa tgaggctgac gcgtggaggg aatatgtgtt ctggaagaat 600
 agagatcaaa ttccaaggac ggtggggaca gtgtgtgatg ataactcaa catagatcat 660
 gcatctgtca ttgttagaca acttgaatgt ggacggctcg ag 702

<210> 237
 <211> 317
 <212> DNA
 <213> Mus musculus

<400> 237
 gaattcggcc aaagaggcct aacggcaact ttacttaaga tttcctgtag tgtgtccgga 60
 gacatacttt atatatagca attatcatgt ttctaactgt gcaatggat gatattatgta 120
 aagattcaaa atgattttgt ggaataattaa ttagcaaaaga tggataagt tagatttgaa 180
 ttcttatgta tcagtaattt atgatcttat ttctctgtta ttgtgaatgt tgggtttatt 240
 aaagagttat tgaactgtc ataaaccatt ttataggtct ttaataaaat taaagatgaa 300
 atcagcaaag tctcgag 317

<210> 238
 <211> 341
 <212> DNA
 <213> Mus musculus

<400> 238

gaattcggcc aaagaggcct acaaagaaat acggattaaa accgccgaca ttataaacac 60
 aggggaaaca gactgactct tttcaaagaa gtttaccctc ttttcaactc aacctgaag 120
 acactgtcat aaattgttga acggtggaac ttagtagtcc ctttgtgatg ttgtcattca 180
 ttacatctgt ttcattgtta ggtgtagtgg gcgtggctgt tgaaggaggt ttgcagtctt 240
 gcagctttta ttccctgtgc aacaaaagct tagaacctgt taaagggata ttaaaacaaa 300
 gttgtagaat acaaacagta attggccatg cagatctcga g 341

<210> 239

<211> 409

<212> DNA

<213> Mus musculus

<400> 239

gaattcggcc aaagaggcct acgaggctcc gggcttaagt gatcctccca cctcagcctc 60
 ctgggtagct gagatcacag gcgcgcgcca ccacaccaag ctaatttttt gatcgtctgt 120
 agagacgtgt ttcacaata tggcccaggc tgggtgtgaa ctctcggagc tcttagatgt 180
 tgattcagac tccttcatag tataataggc ttaaaatgga aagactgtgc gtacaggaat 240
 ttatcctaag gaagtaatgt gtcagatttg cgtatataaa tttaatatca gttattaaga 300
 atttttttta aaattaaata ttcaagtttt gggaatctgc taattctgtt gtgaaagtgg 360
 aaatctatac agccacttaa aacagtatcg taggtgaaga gaactcgag 409

<210> 240

<211> 190

<212> DNA

<213> Mus musculus

<400> 240

gaattcggcc aaagaggcct acggcttgta ttttacaacg aaagcttata tatttgaagg 60
 tggccttgga atgtctaata gagacagcta tttttatgcc gcaattgttg ctgttggtgc 120
 tgttcatgtg gttctggccc tgtttgccta tgtggcctgg aatgaaggct cagcacagt 180
 gcggctcgag 190

<210> 241

<211> 188

<212> DNA

<213> Mus musculus

<400> 241

gaattcggcc aaagaggcct agtgtatctg tgtctgtgtc tgtgtgtttg gggtagacag 60
 accgacaggt ggacagttca gcagagtcca aaggccacac tgggaaagaa atgaatttac 120
 ttttagtgct tctttctctc ttccctccctg ccttccccag tgcaagagaa gacgacaggc 180
 cactcgag 188

<210> 242

<211> 110

<212> DNA

<213> Mus musculus

<400> 242

gaattcggcc aaagaggcct acacagaaca tgtttgggat gtggaagcct atgggtttct 60
 tggctattgc agcagtagct ctgtatgtgt taccctaata gcgactcgag 110

<210> 243

<211> 282

<212> DNA

<213> Mus musculus

<400> 243

gatcttctac tactagttag cttgatttta aaacttggtt gtgcagtatt gttctgatct 60

```

ctccctgaaa atataataac ggagaaatac ctagctggag tcttctggaa ggggaatggc 120
tcatgatctg tggctattat gtacatggtg tctttggctg tggctctttt ctccctgggtg 180
gctgtaaatc ctccagctc ggccaggagt ggcaaagctc tgagcaccga tgcctgctgcc 240
tgtcagggca gacttcctcg tcctcaccac ccacatctcg ag 282

```

<210> 244

<211> 372

<212> DNA

<213> Mus musculus

<400> 244

```

gaattcggcc aaagaggcct acttcagcgc tgtgttacct cactgtctt taatagcctt 60
actgaattat aaggctatat tacaactac catattggtg aaacattcag caagactcct 120
tgttaataat aattatatcc agtttctaata tattatccaa attctaatta ccctaacgt 180
tgaaacataa aaggtgaagca ctagtaaaagt cctggcttcc tcctttcagt tgtgatagcc 240
caatcctttg aggtaatagt aatgggtttc aaatcaata cagccttgct ctgctgtgtt 300
tgctcagcat tatttcctc ccatactatc ttttccccc caggccttgg agaatcaatc 360
acacacctcg ag 372

```

<210> 245

<211> 367

<212> DNA

<213> Mus musculus

<400> 245

```

gaattcggcc aaagaggcct agtttctcac tgtagaaatg aagcctgtgt gacgtgatgc 60
ctgtgctaac tagctgactt acctgtgtca ctatgcacat gccatagtga catgtcatga 120
catgtcatgt tacacgcttc caaacatggt gccatggta aaaacacaca gcttatctgt 180
taattgaaaa gagtagttaa aaaccagcaa ccaatttcct tcctttcacc ttctctctcc 240
tctcccttcc atttcccttc cttttctttt ctttctgact attttgatta ttctctgact 300
tttgtttcct acccattaaa tcgatctatt ttttcacaat cacagacaca cacagacaca 360
tctcgag 367

```

<210> 246

<211> 362

<212> DNA

<213> Mus musculus

<400> 246

```

gagtcctggc tgtccacatg gtcacatca tcttcacat ccataatc catgtgggtca 60
tggctttcgt tggacttact tggagggtc tcttgtttaa agtcattggt ttcttcagag 120
gacacagcat tctgtggggc taggagattc tgcttctgag atgggtcagg gtttagccat 180
gtggccacag catctgggta tttgttgtaa agctgctttt cctcagaact tccagaatca 240
gctgttttaa ctggtatggc acaggtgatg cctaggaggc aaaagcaaat cactgcaatt 300
ctcatggtag tgagttttcc ttggacggct cgaggcaggc ctaggcctct ttggccgaat 360
tc 362

```

<210> 247

<211> 486

<212> DNA

<213> Mus musculus

<400> 247

```

gaattcggcc aaagaggcct atgcttgccg gcagactcgc cgccatgggc cgtgtgatcc 60
gagggcagag gaaaggcgcg ggttctgttt tccgtgcgca cgtgaagcac cgtgaaggcg 120
ccgcgcgcct acgtgctgtg gacttcgcgg agcgacacgg ctacattaaa ggcacgtgaa 180
aggacatcat tcatgacctt ggccgcggcg ctcccctcgc caaagtcgtc ttccgggac 240
cctaccgatt caagaagcgg acagagctgt tcacgcgagc ggagggggac cacactggac 300
agttcgtgta ctgcggcaag aaggcccagc tgaatatcgg caatgttttg cccgtgggca 360
ccatgcctga gggtacgatc gctgtgtgtc tggaggagaa acctggggac aggggcaagc 420

```

tggccccgagc ctccgggaac tacgccacag tcatctccca caaccagag accaagaaga 480
ctcgag 486

<210> 248
<211> 182
<212> DNA
<213> Mus musculus

<400> 248
ctcgagagga aaggggacac gagcttagca tccaaagggt tttcgtgggc cacacagagt 60
aagggtccaa aaccagtgcg gtgggccctt tgggtgcctgg gggaggccag gttctctaac 120
tctcgaggca ggtctagaat tcaatcggcc aaagaggcct ataggcctct ttggccgaat 180
tc 182

<210> 249
<211> 101
<212> DNA
<213> Homo sapiens

<400> 249
gaattcggcc aaagaggcct accatgggat ctgtgactgt tttgtgtatt gttgtatctt 60
tactcctaga gtgggtgcctg gcaagtagta gcaggctcga g 101

<210> 250
<211> 374
<212> DNA
<213> Homo sapiens

<400> 250
gaattcggcc aaagaggcct aatgatcttt cccattgcc caggctggag tgcagtgggtg 60
tgatcatagc tcaactgcagc ctcaagtgat agctcgtagc tcaactgggtc aagtgatcct 120
cctacctcat cgtgagtagc tgggactaca ggtgcccctc caccatactc acctaattgtt 180
ttgaatattt tgtagagatg aggtcttgct atgttgccca ggctgggtctc aaactcctgg 240
gctcaagtga ttctcccgcg ttggcttccc aaattgctgg gattataggt atgagccacc 300
aagcccagcc ctgacctgat taataacacc caagacacac agagggtggga ccgtaacacg 360
gggagctact cgag 374

<210> 251
<211> 268
<212> DNA
<213> Homo sapiens

<400> 251
gcggccaaag aggcctacga gattctgtct ccaaaaaaaaa aaagcataag gaaaagggaac 60
aatttttagtt cctcataacc aattttcata tgctatattg aatctttcca aataaatgat 120
atttaataact aatgttttct gcttatttcc catgattctt ttggtgtctt acacttttaa 180
taataataaaa atattccggc caggcgtggt ggctcacgcc tgtaatccca acaatttggtg 240
aggccgagat gaacggatcc atctcgag 268

<210> 252
<211> 373
<212> DNA
<213> Homo sapiens

<400> 252
gaattcggcc aaagaggcct acttctttgt aatactcaga gacaatctca gtggcccctc 60
cagctgcatg gctttaaagt ccactgacat gctgatgggt cagtaggggg gcgctgtggt 120
gccttgccag atcccttcaç acagccagt cccaggaccc ccaccccaa cactactacca 180
cgcatggtag ctgccagatg cctacagcct cttttccaga gacttgccct caactgaagt 240
cacttgccct caaatgtacc cactactcca gagaacttct cacagccaat aatgactga 300

taaaggcttt cacagggtcc ttctgagagc accccaaca ataaaccaag tgcattcaga 360
 tccctgtctc gag 373

<210> 253
 <211> 553
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (48)

<220>
 <221> unsure
 <222> (86)

<220>
 <221> unsure
 <222> (461)

<400> 253
 gaattcggcc aaagaggcct atgcccgtga agaggcgggc ataacacngc aagacgagaa 60
 gaccctatgg agctttaatt tattantgca aacagtacct aacaaacca caggtcctaa 120
 actaccaaac ctgcattaaa aatttcggtt ggggcgacct cggagcagaa cccaacctcc 180
 gagcagtaca tgctaagact tcaccagtca aagcgaacta ctatactcaa ttgatccaat 240
 aacttgacca acggaacaag ttaccctagg gataacagcg caatcctatt ctagagtcca 300
 tatcaacaat aggggtttacg acctcgatgt tggatcagga catcccgatg gtgcagccgc 360
 tattaaggt tcgtttgttc aacgattaaa gtccctacgtg atctgagttc agaccggagt 420
 aatccaggtc ggtttctatc tacttcaaat tcctccctgt ncgaaaggac aagagaaata 480
 aggcctactt cacaaagcgc cttcccccgt aaatgatata atctcaactt agtattatac 540
 ccagcacctc gag 553

<210> 254
 <211> 398
 <212> DNA
 <213> Homo sapiens

<400> 254
 gaattcggcc aaagaggcct aagaaagtga aaggtaagta gatagcacia aaggaaatgg 60
 tacaaataag cccaaaagtg taatgtatca gactcaatgt ggataaaatt cacctattaa 120
 aaggcagaga tgggataata ataacataaa tcctgctgta tcctgggtta taaaaggcac 180
 acctaacacc aaaccaaag aaaattttga acataaagtt ttgaaaaact aagaggtttt 240
 tattaacact cttttattaa atctatttta ttatttatag taagatgacg tgttagtcca 300
 ttctcatgct actaataaag acatacccaa gattgggtaa tttataaaga aaagaagttt 360
 aattgactca tagttttgca tagccgggaa agctcgag 398

<210> 255
 <211> 492
 <212> DNA
 <213> Homo sapiens

<400> 255
 gaattcggcc aaagaggcct actcctgtac ttctagaaat gatgcaaaca cttcaaggac 60
 ccacaaatgt ggaagaaagg aaaatccaaa cctcctaggg ccagcaacc caaacaaaac 120
 ctctatttac atttcataaa tttgccttca atcaactttt atgcaaata tttttcacat 180
 aattgtattc atatttaaac aaaatttttt ttttttttta gtatgacag gggcttgcta 240
 tgttgcccac gctgggtctg aacccttagc ctcaaacaat cttctcactt cagcatccca 300
 aaatgttggg attacagaca tgagccactg cacctagcct aaacagagta ttttttatta 360
 cacacctttt atgtgtccat gattacagta ggagtgttag gggatataaa ggcctatgcc 420
 actgaagtcc aaagaagaag gaggtcaaga aagagttttt gaagtagcat ttaagatgga 480

taaaccctcg ag

492

<210> 256

<211> 408

<212> DNA

<213> Homo sapiens

<400> 256

```

gaattcggcc aaagaggcct agcccttggt atttttttac ttcatagtt tatgctagt 60
tctctgtctc ttactcaatt tctctctttt tcaatttctc ttctctctcc ttctctctc 120
tctctctctc acacacacac acaccctaca cacatgggca cacacacaca gtttccagg 180
tttccctccc aaatccaaga agaaattggt cctctctctg tatctccagt ctgttccgaa 240
atcatggctt cactctcagg gatgataagc ccttctctcg cttctctttt cccagacccc 300
aaagtcttcc ctcagcctgc tctggcgctc cccaccccaa gttccctgct caaactcctc 360
actaccagcc tttatccccc gaagtgtgaa aatcccctgg acctcgag 408

```

<210> 257

<211> 493

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (71)

<400> 257

```

gaattcggcc aaagaggcct agtgatttgt ttgttttttg agatggagtc tcgcactgtc 60
atccaggctg nagtgcaatg gtgcaatctc tgctcactgc aaactccgcc tccctggctc 120
aagtgtattc cctgcctcag cctcccaggt agctgggatt acaggcacat gccactgcgc 180
caagctaatt tttgtatttt tagtagaaac ggggtttcac catgttgctt gggctgggtc 240
tgaattcctg acctcagggt atacttgctt cgccctccca aagtgttggg gttacaggcg 300
tgagccagtg cgcccagcgg cctctgtgat tttttaaat gtgtcactca cactaaattt 360
aacagcaatt tttttgataa ctcatttttt ttgtagtctt tccagaacat taaacttagt 420
tttcatagaa attgcaattc tctttgtatt taattaactt acataattaa aataacaact 480
ggctacactc gag 493

```

<210> 258

<211> 525

<212> DNA

<213> Homo sapiens

<400> 258

```

gaattcggcc aaagaggcct agacagagca agactctgtc taaaaaaaaa aggacaatga 60
gatatactaa aatggtccaa tatgttaatt aaaacatact actaaaaaaaa gtgttaaata 120
gcctgaaaga attgtgataa aggggaaact gagtactggg aacaaaagag aacaagtagg 180
taacgaagtg gtggccaggt gcagtggctc aggcctgtca tcccagcact gtgggagacc 240
gaggcgggcg gatcacttga ggtcaggagt cagaccagtc tggccaacat agtgaaaccc 300
cgtctctact aaaaaatacaa agttagccag gggatgatgg gggagcctat aattcgagct 360
acgtgggagg ctgaggtagg agaatactt gaaccgggac ggtgctgcca cccgaggaag 420
tgacagctga actgagatct gactgaaggg ctgaagtctg gtggatgaag atgccagagg 480
agactgttct taggcagagg gagcagtgat acgaaggacc tcgag 525

```

<210> 259

<211> 344

<212> DNA

<213> Homo sapiens

<400> 259

```

gaattcggcc aaagaggcct agagcttagg gagcatagga gtctcctgga gaattagaag 60
aaacagattt tcttagctcc ggccccagac gttctgattt agtgtggtgt agaactcagg 120

```

```

agtttagtaat attaatggac agtcttgagt atttgctgat gcaactgggc tgaggaccat 180
actttggaag acctgcttta gatagtagac aggacagtaa tttaaaatag gcaaatatgg 240
tttattttta aaatggtaaa actagaaaga tactgatttt atgtgtttta aaaaaaaagt 300
ctgcatctga ctgctatggt tatccaagaa ggcaccgct cgag 344

```

<210> 260

<211> 262

<212> DNA

<213> Homo sapiens

<400> 260

```

gctgtgccta ataacattgt gtgtgtgtgt gtgtgtgtgt gtgtgtgtgt gtgtgtgtgt 60
gtgtgtgttt attgagaggg tgggggggca tcaactcaaca ttcagcctgt acataactca 120
aggtgtagaa gtgacaaaga tgactcaacc aacaggactt cccatgactg gccagccaga 180
ggaagagggc atgaggacac agccagcagc gttactgggt cgtgatgacg cagacctgcc 240
gggacacccc caaattctcg ag 262

```

<210> 261

<211> 421

<212> DNA

<213> Homo sapiens

<400> 261

```

gaattcggcc ttcattggcct acaaacagct gggaaatgtct ccaagccaga gtggactact 60
agtaggtatt cgttacttca ttgaattctg cagtgcctcc ttttggggtg tagttgcaga 120
ccgcttttaa aaaggcaaaa ttgtccctct cttttctctt ttgtgttggg ttttattcaa 180
cctggggcatt ggatttgtca aacctgctac cttgagatgt gtaccaaaga ttcgcccac 240
aactcacccc accaatgcaa gtcaccagtt aactatcctg ccaacaaatt cttcctttac 300
ctctttctct accatatcac caaaaatgcg tgagaaaaga aaccttttgg aaacagggct 360
caatgtctca gacaccgtta ctttgccaac agctccaaac atgaacagtg aaacactcga 420
g 421

```

<210> 262

<211> 329

<212> DNA

<213> Homo sapiens

<400> 262

```

gggtcaaacaa tatgaaactt gaagaagtag ttgtgacttt gcagcttga ggtgacaaag 60
agccaacaga gacaatagga gacttgtcaa tttgtcttga tgggctacag ttagagtctg 120
aagttgttac caatggtgaa actacatgtt cagaaagtgc ttctcagaat gatgatggct 180
ccagatccaa ggatgaaaca agagtgcgca caaatggatc agatgaccct gaagatgcag 240
gagctgggtga aaataggaga gtcagtggga ataattctcc atcactctca aatggtgggt 300
ttaaaccttc tagaccccca aaactcgag 329

```

<210> 263

<211> 499

<212> DNA

<213> Homo sapiens

<400> 263

```

gaattcggcc ttcattggcct aggtagcggg tacagaataa acacagaaat ctggatatga 60
gaaataactg tggaaattat aattccaacc aatgaaatc cagcaccttg ataactatga 120
tctgactaca atattattaa acaaagctcg aagaggaaaa taggaatact aaaaatatca 180
cattaagacc aagatgagtc cattatcacc aatgctctac agttccattc ttcaggattt 240
ccactccatt ttaaattgcta gggctgattt tcttcattt aacctgaat gcttatgata 300
acaccaataa cttgatttac cttatatgaa gatggcggct ctgctctgag aggagtttca 360
ggtaacttgc caggtaaaac atcttcatct acagtgggtt ccacattcct gataagatac 420
tggtcagtgg tttgcagtga actaacactt tcttttttgg agaggttagg aagggtaaat 480
aaaatgtcac tgtctcgag 499

```

<210> 264
 <211> 317
 <212> DNA
 <213> Homo sapiens

<400> 264
 gaattcggcc ttcattggcct agtttttgtg agagtgtgta ggagtggagag tttatatattg 60
 gagaatatga gatgtaagat atgtatacca gaagaattgg gggtatatat ttgtgatttg 120
 gggttggaag atgtattttc catgtgtttt ctcagatgaa tgttgggcat ttgtattttg 180
 ctaatgtttg gcagatttgg aagaattatc ttgtgcacat gggcaataac agagaaagtg 240
 cttgtgtcta ttttgtggat gtacgctctg tttggtttac gtatttggga aatgtaggaa 300
 gaccatgcgt actcgag 317

<210> 265
 <211> 301
 <212> DNA
 <213> Homo sapiens

<400> 265
 gaattcggcc ttcattggcct agtatcacag gctttcttca aataaccagt tcctctaaga 60
 cattgaaaat ataattcggg gtttaaaata aattcatacc cgttttgtgt gctgtgcata 120
 aatagcaagt atattgtgtac cttaccaaac ttatgggtccc cagtccccaattccaaaat 180
 tatgcaggag ggaagggttag ccattgcagt aaacaatttc tccctattga cccatgctct 240
 ccagctgatt atgatgtggg cagtactcat ccaaggctat acagaccagc cgggtctcga 300
 g 301

<210> 266
 <211> 517
 <212> DNA
 <213> Homo sapiens

<400> 266
 gaattcggcc ttcattggcct aggtaaagaa aaagcctgcc agggattcag aaggcatccc 60
 actagcgatc agctgacatt cctaactgaa ggctgcaatg tgttgcttat tcattttgta 120
 ccgtggggagc tgcgggggact agcagagagc taaactatgc atttcaaaca gcagtgtctg 180
 tgcagaaaga ggggtgagag agaggcagcc ggcgaggaaa gagcacagct ggactttctc 240
 cttgttttta tccatttctg caggatcatg tattcataag ggatgaggcg ggccacggcg 300
 atcccaggcc tgagccgcgg cctaccagct cagttcagag ccaggccctc cactaccgga 360
 acagagagcg ctttgccacg atcaaatcag catctttggt tacacgacag atccatgagc 420
 atgagcagga gaacgagttg cgggaacaga tgtcagggtta taagtggatg cgacaatgga 480
 ttttacataa tggattgaat tctagacctg cctcgag 517

<210> 267
 <211> 491
 <212> DNA
 <213> Homo sapiens

<400> 267
 gaattcggcc ttcattggcct aatcccagct actcaggagg ctgaggcagg agaatcactt 60
 gaaccgggga ggcggaagtt gcagtgaagt gagattgcgc ccctgcactc cagtccgggc 120
 aacagagcga gactccatct caaaaatata tatatatatt cagcaccac cacttctccc 180
 catctccact gcctgcacca gcccaggcc tgtccctcac ttgggtgctg tcgtagctcc 240
 tgtctgggct gcttgcatte acctttgcca ccacagtctt ttctctccat agcagccggg 300
 ctgattcttc tcaaacctaa gtgcgatcaa gtcactcagc tgctcttcag cctgcagtgt 360
 ctccctgaact caccctggcc ctcaaggcca acccatcttc ctgcagcagc tcgcctcttg 420
 gtgtctccct cacttgcctg gctcctatcg tgcgggcctc catgcgcctc ctgaacacac 480
 acagtctcga g 491

<210> 268
 <211> 528

<212> DNA

<213> Homo sapiens

<400> 268

```

gaattcggct tcattggccta caatctagag aaagcaaaaa ctatggaatt gaatgtagga 60
aatgaagcta gctttcatgg acaagagaga accaaaactg gtatttctga agaagcagca 120
atagaagaaa ataaaagaaa tgatgactct gaagcagaca cagctaaact gaatgccaaa 180
gaagtagcaa ctgaggaatt taattcagat attagtcttt ctgataatac tacacctgta 240
aaattgaatg ctcaaaactga gatttctgaa caaacagcag ctgggggaact agatggagga 300
aatgatgtat ctgatctaca ctcatctgaa gaaacgaata ccaaaatgaa aaattatgaa 360
gaaatgatga tcggcgaggc aatggctgaa actggccatg atggtgaaac agagaatgag 420
ggcataacta ccaaaacctc aaagcctgat gaagctgaaa caaacatgtt gactgcagaa 480
atggacaact ttgtttgtga cacagttgaa atgagcacia gactcgag 528

```

<210> 269

<211> 454

<212> DNA

<213> Homo sapiens

<400> 269

```

gaattcagct tcattggccta gggacgggtg tctcaaaaaa caaaaacaaa aataagttag 60
aaaaaaaaacc agaagaaact tgtccttagc gttcctaaga cttaggagag ctaagccggg 120
gagggcagga gtagatggac aagaccatac caaggtcagc tgttccccct gccgagaagg 180
cagcagctga actttccgct tacgctgccc agagctgcca ggtgtagact gagaattcga 240
gttttgtttc ttcttgggg ttgtatctgc agccttttct ccttgggact cctgtctgct 300
gccaatggag ttgaagaact ggaatgatga cacagctctt cttctcttat tttctttgct 360
ggcctctccg gtgtctggga gcgggatgag gctgggctag agaaggggtga tgaactgggg 420
ccatttctct tccacagctg tgagatgcct cgag 454

```

<210> 270

<211> 340

<212> DNA

<213> Homo sapiens

<400> 270

```

gaattcggcc ttcattgccta gtgtgctgta tgacaaagac gctgtctatg ttgaccttgg 60
tggcagccac gtttttcagg atgaagtggg gccaccccat gagctgggtc agagtctcat 120
ctctaccac tccaccattg atgccaaagt ggcttcaagt cgagtgcgcg tgttttctga 180
ttccaagcca cttgggtcag aggatataga taatcaaggg ctaatgatgc caaaggagga 240
aaaacaaatg gacttgaaca ctggctgaat gcgtcggaaa gccattttcg gagatgaaga 300
tgaatctgga gatagtgatg atgaagaaga tgatctcgag 340

```

<210> 271

<211> 496

<212> DNA

<213> Homo sapiens

<400> 271

```

gaattcggcc aaagaggcct atgaagtcac tgagacaata gctgatctca ttgggccaat 60
gagtccttcta aaaattgcag tccttctccc ttggcattcc acagtcaagt aaacttacac 120
gtattgtctg gaagaatgaa tccattcctt cctccatctt ctttggctct ggtgtgggct 180
tatgtaatct ggatacaatc ccataaagtt gctgtgttta gtaatgtcat ttctccgtgt 240
ctgttgggga ctggtttcac gatcccttaa ggatagcaaa atctctggat gctcatggcc 300
tttatataaa agggcacgat atttgcatac aatctacaca tccccccaca tactttcaat 360
catctctact cataatactg aatacaatgt aaatcctatg taaatcgta ctatgctgta 420
ttgggttttt cgtctgtgat attttcagta ttgcattgtt ttgttgtaaa aacagggtct 480
tgctcagtc ctcgag 496

```

<210> 272

<211> 403

<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (25)

<220>
<221> unsure
<222> (29)

<220>
<221> unsure
<222> (43)

<400> 272
gaattcggcc ttcattggcct aagantgtnt gtgggtgtgg ganccagccg taccagaaat 60
cttttttaggg aagcaaaggc gaatgtctct tgtgttatat ttattgatga attagattct 120
gttggtggga agagaattga atctccaatg catccatatt caaggcagac cataaatcaa 180
cttcttgctg aaatggatgg ttttaaaccc aatgaaggag ttatcataat aggagccaca 240
aacttcccag aggcattaga taatgcctta atacgtcctg gtcgttttga catgcaagtt 300
acagtcccaa ggcagatgt aaaaggctga acagaaattt tgaaatggta tctcaataaa 360
ataaagtttg atcaatccgt tgatccagaa attatagctc gag 403

<210> 273
<211> 455
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (133)

<400> 273
gaattcggcc ttcattggcct agtaggtaca tccaaaattt cttcatagtc tgcactcatt 60
ccctttgccc agcgaccaac tgtgaccatt cgctctgaat tctgactttc agggcaattc 120
ttcttttaaat gtnccacaga gccacaaagt ttgcaaccgc caccatcagc atagagtcct 180
ttgggattat caggacaaga tctagacagg tgccccattt ctccacaaac aaaacatttt 240
gcaaaaggaa attcgccaag agccgggtct actttagcct tacacttggg tatttcgtgc 300
tctgtggacc cacacctgta acatatccca gtgcccattg cttgattttc aagggcagcg 360
gggcaatctg caattccatg accaggtttt ctacaatgga aacacaccgc gcacgaatcc 420
cccaggcact cgaggcaggt ctagaattca atcgg 455

<210> 274
<211> 383
<212> DNA
<213> Homo sapiens

<400> 274
gaattcggcc ttcattggcct agggaaaaat gattgtagaa ctagtgggca tctaattgctc 60
taaaaaattt tttttgtttg ttttttttta aagacagggt ctcacctctc ccccgatcg 120
ggagtgcagt ggcacaatca cggctcactg caccctcgaa ctctgggct caagcaatac 180
tctgcctca cctccggag tagctggaac tacagatgtg caccaccata aaaaacatat 240
ttaaaaattc tgaaatattt gtagtgctaa cgcttttttt atccactgag tatagaatca 300
cagcataatc ttcataact tttaccttca caagttcttt aaatacagca tgctgaatca 360
ttttttcttt gacctgcctc gag 383

<210> 275
<211> 302
<212> DNA

<213> Homo sapiens

<400> 275

```
gggaagatct aaagaccag gaaggtctct gggataaagc caagatgaaa ctccccttac 60
ttctggctct tctatttggg gcagtttctg ctcttcatct aaggtctgag acttccacct 120
ttgagacccc ttgggtgct aagacgctgc ctgaggatga ggagacacca gagcaggaga 180
tggaggagac cccttgcagg gagctggagg aagaggagga gtggggctct ggaagtgaag 240
atgcttccaa gaaagatggg gctgttgagt ctatctcagt gccagatatg gtgatactcg 300
ag 302
```

<210> 276

<211> 468

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (319)

<400> 276

```
gaattcggcc ttcattggcct aaaactagaa acagttatat cctttagaga aattactatt 60
ttcaagattt ttgctagctg cttcttggca agttttgtaa acttttggtg acttttaact 120
ttatgtcact catctcttaa aactgtagat cacttttgtc ttgctaggta caatgttggg 180
gtcacacagt cttcattaca tgcattgtggg tggcacattt ctgatgtcag gctagcttcc 240
ttcctaacac ttccttgca cttcttagca gcattgatctt agggcatgta agcccatttt 300
aatgttagtc ttaaacatnt gacacacaca cacacacaca cacacacaca cacacacaca 360
cacatacacg gacattttgg gattatagtg atattgttaa attgaatata taactggaat 420
caagtgcacat ttgaatgaga cagattcaca gaagtcatag agctcgag 468
```

<210> 277

<211> 443

<212> DNA

<213> Homo sapiens

<400> 277

```
gaattcggcc ttcattggcct actaagcacc atagaatata ttttgtttca caaatttggg 60
attcattcag aataagtatt tgaaaagtga gtaaatctta tgcaattata gttattaaat 120
gacttataaa ctgtgtttct cttccacttc ttgctacatt taatcttcta ggtgttcaga 180
tatctttgga gattataggg agcaataaag ctaaggcagc taacctttca acattcttgt 240
gtcaggctaa tattttgggt aaaggaattc ttgtgtttct caaagaacta gagctgaagc 300
agaaataagt tccaatgagc aagtgtccaa ttggaccatt gaatgaaatc tagtgtttta 360
aacaattctg atgtttcaat gttttgttct gttttctttt gatcttgtga gcagtaagac 420
atattttatg tgggtggctc gag 443
```

<210> 278

<211> 354

<212> DNA

<213> Homo sapiens

<400> 278

```
gaattcggcc ttcattggcct aggtggagtc cgtcatgccg gtggtgggtg gcacattgag 60
ccccggata gacagttccc ccagctgacc agatcccagg tgttccagag cgagttcttc 120
agcggactca tgtggttctg gattctctgg cgcttttggc atgactcaga agaggtgctg 180
ggtcactttc cgtatcctga tccttcccag tggacagatg aagaattagg tatccctcct 240
gatgatgaag actgaagggt tagactcagc ctactctgt acaagagcca ggtgagaatt 300
tcaaggatta tcgacttcat attgcacatt aaagttacaa attaaagact cgag 354
```

<210> 279

<211> 414

<212> DNA

<213> Homo sapiens

<400> 279

```
gaattcggcc ttcattggcct acacaaacca gcttgctgac aaaggggaagc tttctcctca 60
tgctttcaaaa accgaatctg gggaggaaac tgacctcatt tctccccgc aggaggaagt 120
taagtcttca gagcctactg aggatgtgga gcccagaagag gctgaagatg atgatacagg 180
acccgaggag gctcaccgcc caaagaagag aaagaaaaga tgtccgggtc tgctccagc 240
gagaaccgtg aaggaaactt ttcggattcc acgggtagcg agaaggatga cctttatccg 300
aacggttctg gaaatggcag cgcggagagc agccacttct ttgcatactt ggtgactgca 360
gccattcttg tggctgtcct ctatatcgct catcacaaca agcggacact cgag 414
```

<210> 280

<211> 352

<212> DNA

<213> Homo sapiens

<400> 280

```
gaattcggcc ttcattggcct acagacatgc aggttgacgg tgaagagcag aataaagaag 60
cgctgcagga cgtggaagac gaaaatcagt gagacataag ccaacaagag aaaccatctc 120
tgaccacccc ctctccccc tcccaccctt tggaaactcc ccattgtcac tgagaaccac 180
caaatctgac ttttaccatt ggtctcagaa tttagggtcc tgccctgttg gttttttttt 240
tttttttttt aaacagtttt caaaagtctt taaaggcaag agtgaatttc tgtggatttt 300
actgggtccc gcttttaggt tctttaagac actaacagga ctaactctcg ag 352
```

<210> 281

<211> 350

<212> DNA

<213> Homo sapiens

<400> 281

```
gaattcggcc ttcattggcct aactgagtgc cctcaaagag aagaagaaga aaaggacagt 60
ggaggaagaa gaccaaatat tccttgatgg ccaggaaaat aaaagaaggc gccatgatag 120
cagtggcagt ggacattcag catttgagcc cctgggtggc agtggagtcc ccgcttcttt 180
tggtcctaag cctgggtctc tgaagagagg cctcaattct cagagctcag atgaccactt 240
gaataagaga tcccgaagct ctcccatgag ctcccttgaca ggcgcttaca caagtggcat 300
ccctagctcc agccgcaatg ccattaccag ttcctacagc tccactcgag 350
```

<210> 282

<211> 285

<212> DNA

<213> Homo sapiens

<400> 282

```
gctttttctaa gaaatatggg gtttagaatg gggttcctgc agctgctggt cgtagcgggtg 60
ctggcatccg aacaccgggt ggctgggtgca gccgaggtct tcgggaattc cagcgagggt 120
cttattgaat tttctgtggg gaaatttaga tacttcgagc tcaataggcc ctttccagag 180
gaagctattt tgcattgatg ttcaagcaat gtgacttttc ttattttcca aatacactca 240
cagtatcaga atacaactgt ttctttttct ccgactcccc tcgag 285
```

<210> 283

<211> 334

<212> DNA

<213> Homo sapiens

<400> 283

```
gtgcgaccaa aatccagtgg agagtccaat gtgtcagtc aatagcagag atcacctcag 60
tgacaaagaa agtaaggaga gcagtgttga gggggcagag aatcaaaggg gtccttttga 120
aagcaaaagg cataaaaaat tactgcagtt acttacctgt tctctgatg accgggggtca 180
ttctcctctg accaaactcc ccctagattc aagttgtaaa gaatcttctg ttagtggtcac 240
cagccctctt ggagtctcct cctctacatc tggaggagta tcctctacat ccaatatgca 300
```

tgggtcactg ttacaagaga agcacggact cgag

334

<210> 284

<211> 445

<212> DNA

<213> Homo sapiens

<400> 284

gaatttctag acctgcctca tgctctctcc aacaggcttg cagccaattt actggagcag 60
 ggatgacgta gcccagtggc tcaagtgggc tgaaaatgag ttttctttaa ggccaattga 120
 cagcaacacg ttgaaatga atggcaaagc tctcctgctg ctgaccaaag aggactttcg 180
 ctatcgatct cctcattcag gtgatgtgct ctatgaactc cttcagcata ttctgaagca 240
 gaggaacact cggattcttt ttccaccatt cttccaccct ggaaactcta tacacacaca 300
 gccggaggtc atactgcacg agaaccatga agaagataac tgtgtccaga ggacccccag 360
 gccatccgtg gataatgtgc accataaccc tcccaccatt gaactgttgc accgctccag 420
 gtcacctatc acgacaaatc tcgag 445

<210> 285

<211> 289

<212> DNA

<213> Homo sapiens

<400> 285

gaattcggcc ttcattggcct aatgagatcc tggattacaa ggatttagca gccattccga 60
 aggtcaaggc aatttatgac attgaacgac cagatcttat tacctatgag cttttctaca 120
 cttcgggcta tgatgacaaa caggagagac agagccttgg agagtctccg aggactttgt 180
 ctccactacc atcagcagaa gggtagcagg atgttcggga tcggatgatc catcggtcca 240
 cgagccaggc ctccatcaac tcccctgtgt acagccgcca caactcgag 289

<210> 286

<211> 422

<212> DNA

<213> Homo sapiens

<400> 286

gcgattgaat tctagacctg cccgagatga atgaccctta tgcctctctc cctgaggatg 60
 atgatgacca tcagaaagac ggcaagacct acagggtgcc gatgtgctca ctgacattct 120
 actccaagtc ggagatgcag atccactcca agtcacacac cgagaccaag cccacacaag 180
 gccacattg ctccaagacc ttcgccaaca gctcctacct ggcccagcac atccgtatac 240
 actcaggggc taagccctac agttgttaact tctgtgagaa atccttcgcg cagctctccc 300
 accttcagca gcacacccga atccacactg gtgatagacc atacaaatgt gcacacccag 360
 gctgtgagaa agccttcaca caactctcca atctgcagggt aaatgttcca cccacactcg 420
 ag 422

<210> 287

<211> 400

<212> DNA

<213> Homo sapiens

<400> 287

gaattcggcc aaagaggcct aggattctca cccactgtgc ttccagccgg ctacacctga 60
 attcgtccat gattttgcga atggctttgc cgcgggcacc aatgatgcgg gcgtgaacgc 120
 ggtggtccag cgggacgtcc tcagaaacca tctgctcaag ttcccccaca attctcagta 180
 tagcatccct ggcagcttct gtgttctttt cgtacctgtg gatggtaatt tggctcctggg 240
 gctaaaaaag gagaatgtag tcagaaaagg ggatgcctta ctgggattcc cgtcaggggc 300
 aagagccggc cccactgtct gaggaaaaca gctcaggaga gaagatggaa agcaacgtca 360
 cggctgattt aaaacaagag gttaacaacg tccactcgag 400

<210> 288

<211> 194

<212> DNA

<213> Homo sapiens

<400> 288

```

gaattcggcc aaagaggcct agcctttatt tgaactacta cattgctacc agattacatc 60
acttttcaga gttagagtaa cataatacct tggaaactat agccgaaaca gttcacatag 120
gaatgcactt tcatccactt tttgcacttt tccttttgga cagtgaagct tatcttacag 180
tcccatttct cgag                                     194

```

<210> 289

<211> 413

<212> DNA

<213> Homo sapiens

<400> 289

```

gaattcggcc aaagaggcct agggggacgt gaggttaagaa ggtgcccggg ccagggggca 60
ggagctctga ttaggacag ctcagcccag tcaaggggtg ctatgaggac agcaggggcc 120
tccgagtctg ggggtggcct acccccacaa gcagtcctgg ctactcagca gcactacca 180
gaggggacgc ctgggcagtt tcttcaattc ggtggcacat caacatcgtt tgaaacttgt 240
tttttcttgt tttgttttct agaatttgat tcttccagaa tgaccttctt atttatgtaa 300
ctggccttca tttagattgt aagtattgga catgatttga gatgtagaag ccatttttta 360
ttaaataaaa cgcttatttt aggtccgctc cccattgtgg ctctggcttc gag         413

```

<210> 290

<211> 213

<212> DNA

<213> Homo sapiens

<400> 290

```

gaattcggcc aaagaggcct acttaatatg actagcttac acaatagctt ttatagtaaa 60
gatactctt tacggactcc acttatgact ccctaaagcc catgtcgaag ccccatcgc 120
tgggtcaata gcacttgctg cagtactctt aaactaggcg gctatggtat aatacgcttc 180
acactcattc tcaatcacct gagtccactc gag                                     213

```

<210> 291

<211> 136

<212> DNA

<213> Homo sapiens

<400> 291

```

gaattcggcc ttcattggcct acgcctacac aattctccga tccgtcccta acaaactagg 60
aggcgtcctt gccctattac tatccatcct catcctagca ataatcccca tcctccatat 120
atccaaacaa ctcgag                                     136

```

<210> 292

<211> 300

<212> DNA

<213> Homo sapiens

<400> 292

```

gcgattgaat tctagactgc cagagccttc cctgtggttg tgtaaatcat ttgtattcag 60
ttactgtgcc cggaaaaccc ttccctcgcg gtgcagggtg cacacagatt cattctcac 120
ttgcttgggg cagtcattgt tctgtctctc tgtctctgtc tctctgtctg tctgtctgtc 180
tgtctctctc tctctctctc ttatctgcac gaagagctcc agatactcgt ctcttggaat 240
gggtggagatg aactaggcat ggaggtgctg gaccaacctc agacgggtcc cccactcgag 300

```

<210> 293

<211> 434

<212> DNA

<213> Homo sapiens

<400> 293

```

gaattcggcc aaagaggcct atttagctga ttattattaa atatttcagt ttgtttata 60
atagaaactg cctcatgttt ccagatatta ttatgctaac atttattttc tgcttaaata 120
gacttgctat ggagagactc tatgcagttt ttacagatta cgagcatgac aaagtttcca 180
gagatgaagc tgtaacaaa ataagattag atacggagga acaactaaaa gaaaaatttc 240
cagaagccga tccatatgaa ataatagaat ccttcaatgt tgttgcaaag gaagttttta 300
gaagtattgt tttgaatgaa tacaaaaggt gcgatggctg qgatttgact tcacttagga 360
atgtaagttg tgaggtagat atgtttaaaa cccctcatgg atcagcatta tttcaaagag 420
gacaaacgct cgag                                     434

```

<210> 294

<211> 386

<212> DNA

<213> Homo sapiens

<400> 294

```

gaattcggcc aaagaggcct aaccacattt ggctcccaa agtgctggga ttacaggtgt 60
gagccactgt gccagcctt aaccattcac ttttgagggg cattttggtt atttctaggt 120
tttggtattt gttcaactgc tatgaacaat catgtacaga tttttgaagc tgaaaaagca 180
ttgaagatgc ttccaaagat aaatattact gataagtttt tctccccagt aataagcagc 240
tggattttta atgttagtct aaagcgtgag gtctaattgt gcagatttct ttactctctt 300
aggtgttatg cctcaaacat aactcccata ttgggcgtgg caatccagtt aatctggtgt 360
cagtagtggt aaagaacat ctcgag                                     386

```

<210> 295

<211> 433

<212> DNA

<213> Homo sapiens

<400> 295

```

gtcgacgggt aaggcaggga cagggggagg tttcttgat ttcttttctt ctttgagac 60
cttcttcaca gggcgtgtgg atttggtgtt ggacgctggg tcatgctctc cagggtcacc 120
tgaactgggg gtgagctcct ggagccgccc gatgcactgc ttcagctcgt ttttgaggtc 180
tatggtgctc tgggtgatgc cttttatcag cttgtggttc agttccactt cggggatgta 240
gactggcctt gttgaaattc ctgcagttt tgatgctttc tccagaaact cgaactcatc 300
cctcttggtc aggtctctgt caatctcttc cctcaaggtc tggatctcac tcttctcttt 360
gaggagaatc tgataaatgg tgtcaaactt gctgttgacc ctcttcgtca cggcctcttt 420
ggcctcagag aca                                     433

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<210> 296

<211> 363

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (197)

<220>

<221> unsure

<222> (343) .. (344)

<400> 296

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gtcgacgagc gccaggcttt atcttatcaa aatgctgact cttatcacca tcacaccagc 60
ccccagcatc tgctacaaat cagggcacaa gaatgtgtct cacaggcttc ctcaccacc 120
ccgccccacg ggtatgctca ccagccggca ctgatgcatt cagagagcat ggaggaggac 180
tgctcgtgtg aggggggncaa ggatggcttc caagacagta agagttcaag tacattgacc 240
aaagggtgcc atgacagccc tctgctcttg agtaccggtg gacctgggga ccctgaatct 300

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ttgctaggaa ctgtgagtea tgccccaaga attgggtcaa cgnnctcttt ggccctcgag 360
aca 363

<210> 297
<211> 545
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (13)

<220>
<221> unsure
<222> (19)

<220>
<221> unsure
<222> (32)..(33)

<220>
<221> unsure
<222> (39)..(40)

<220>
<221> unsure
<222> (59)

<220>
<221> unsure
<222> (68)

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<221> unsure
<222> (72)

<220>
<221> unsure
<222> (78)

<220>
<221> unsure
<222> (81)

<220>
<221> unsure
<222> (211)

<220>
<221> unsure
<222> (228)

<220>
<221> unsure
<222> (343)

<400> 297
ctgcccacaaa ttncagcna atacccaagc anncaaccn naccacactc ggaattcgnc 60
caaagagncc gncacacnac nccgacccaa ggaaaaactc cactaccatg agaattgcag 120
tgatttgctt ttgcctccta ggcacacac gtgccatacc agttaaacag gctgattctg 180

```

gaagttctga ggaaaagcag ctttacaaca natacccaga tgctgtgncc acatggctaa 240
accctgaccc atctcagaag cagaatctcc tagccccaca gaatgctgtg tcctctgaag 300
aaaccaatga ctttaaacaa gagacccttc caagtaagtc cancgaaagc catgaccaca 360
tggatgatat ggatgatgaa gatgatgacg accatgtgga cagccaggac tccattgact 420
cgagcgactc tgatgatgta gatgacactg atgattctca ccagtctgat gagtctcacc 480
attctgatga atctgatgaa ctggtcactg attttccgtc gacggcctct ttggccctcg 540
agaca 545

```

<210> 298

<211> 419

<212> DNA

<213> Mus musculus

<400> 298

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gaattcggcc aaagaggcct ataaattttg accactgttt ccttaagaaa tccattcatc 60
tgcagctaaa aatataaata ttttatgagg tagcataagt gtggggtgca aacataagat 120
aatagctagt attcataata attccatttg aattagagaa aaaaattcag aattgatact 180
atttgttaat ttgttgccct tatggaagat gatttctaag ttctgttagaa tttcttagcc 240
aagcctgtct ctgacgtaaa tctgacctat tgtgtggttg gacttagaat attttccctt 300
atgggaaagt acgcttgaac ctcaacattg ggccagtgtt tctcctttgc ctgtgtagt 360
tcacagttagg agggaaacat ctaactagaa tgctgtacct cagcccccca gaactcgag 419

```

<210> 299

<211> 511

<212> DNA

<213> Mus musculus

<400> 299

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gaattcggcc aaagaggcct agtggcgccg tccggcaaag tgatttgag aggtacaact 60
gatgagaaaa aaagagcaag agaggaaaag agagacttct gctgccaca tgagagaaag 120
tattatgtca ttttttcaac ccacaaaaga aggtaaagcg aagaagccag agaaggagac 180
accagcagc atcagagaga aggaaccccc tccaaagggtg gcgctgaagg agaggaatca 240
agtgtgccc gagagtgtt ctccagtga gaggacagga aggaaggtag cccagggttct 300
gagctgtgaa ggggaggacg aagatgaagc ccctggcacc cccaaagtcc agaagcctgt 360
gtcagactct gaacagagct ctccctcccag ccctgacaca tgccttgaga acagtccctgt 420
cttcaactgc agctccccca tggacatctc cccatcagga ttcccaaagc gtcgaactgc 480
gcggaagcag ctccccaac ggacactcga g 511

```

<210> 300

<211> 663

<212> DNA

<213> Mus musculus

<220>

<221> unsure

<222> (272)

<220>

<221> unsure

<222> (330)

<400> 300

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gaattcggcc aaagaagcct aggagcttgg aaactttgca actttgggac caagcacaat 60
gaagtattcc ctctgggctc tgctgcttgc cgtgtggggc acacagctgc tgggaagcct 120
gtgttccacc gttcgggtccc agagtccga ggaaggatac agcaggaacg aaaaaacatc 180
agaccacaata ttatccttgt gctcactgac gaccaggatg tggagctggg ttccctgcaa 240
gtcttgaaca agacgagaaa aatcatggaa cnggggtggg ccaccttcac caatgccttt 300
gtgaccacgc ccatgtgtg tccatcacgn tcatccatgc tcaactgggaa gtacgtgcat 360
aaccacaatg tctacaccaa caatgagaac tgctcgtctc cttcgtggca ggcaatgcac 420
gagcctcgga cctttgtgtg gtatctcaac aacaccggct acagaacagc cttttttgga 480

```

aaatacctca atgaatacaa tggcagctac atccctcctg gatggcgaga atggctcgga 540
 ttaatacaaga attctcgttt ctataattac actgtttgtc gcaacggcat caaggagaag 600
 catggatttg attatgcaaa ggattacttc acagacttaa tcactaacga gagcatactc 660
 gag 663

<210> 301
 <211> 412
 <212> DNA
 <213> Mus musculus

<400> 301
 gaattcggcc aaagaggcct agatgaagtt cactgtgggtg gcggcggcgt tgctgctgct 60
 gggcgcggtg cggggccgagg aggaggacaa gaaggaggat gtgggcacgg tggtcggcat 120
 cgacttgggg accacctatt cctgcgtcgg tgtgttcaag aacggccgcg tggagatcat 180
 agccaacgat cagggcaacc gcatcacgcc gtcgtatgtg gccttcactc ctgaagggga 240
 gcgtctgatt ggcgatgcgg ccaagaacca actcacgtcc aaccccgaga acacggtctt 300
 cgatgccaaag cgccctcatcg gacgcacttg gaatgacctc tcggtgcagc aggacatcaa 360
 gttcttgcca ttcaagggtg ttgaaaagaa aactaaaccg cacattctcg ag 412

<210> 302
 <211> 499
 <212> DNA
 <213> Mus musculus

<400> 302
 gaattcggcc aaagaggcct aggactactc cttaataatg cagaccttac aggaagagcg 60
 gtatagatgt gagcgactgg aagagcagct gaatgacctg acagagctgc accagaatga 120
 gatcctgaac ttaaagcagg agttggccag catggaagag aaaatcgcct atcagtcata 180
 tgaacgggcc cgggatatcc aggaggctct ggaggcctgt caaaccgcga ttccaagat 240
 ggagctgcag cagcaacagc agcaggtggt gcaactggaa gggctggaga atgccactgc 300
 ccgaaacctt ctgggcaaac tcatcaatat cctccttgct gtcattggcag ttctcttggt 360
 ctttgtgtca acagtagcca actgtgtggt cccctcatg aagacacgca acaggacgtt 420
 cagcacttta ttccatagtgg ctttcattgc ctttcttttg aagcactggg atgccctctt 480
 tagctacgtg gtactcgag 499

<210> 303
 <211> 472
 <212> DNA
 <213> Mus musculus

<400> 303
 gaattcggcc aaagaggcct acatggagtc cccttctttg tttctctgca aagggtcctt 60
 gctcacagcc tcacttttaa tctgctggaa ctgggtccact gcagcactgc tgacctctaa 120
 agaaatgcgc ttctcagctg ctgaaggggc aaaggttctt ctctctgttc ctgaccagga 180
 ggagaacctc ctctcctttt cctggtacaa aggggaaggat gtaaatgaaa attttacaat 240
 tgcacattat aaaaagtcca gcgattcact tcaacttggg aagaaagtca gcggcagggg 300
 agaaatctat aaggatggct ccatgatgct ccggggccatc accctggaag acacgggatt 360
 ctacacgtta caaaccttta aagcacaagg ccaacaggaa gtaacacatt tccatctcca 420
 agtatacaag atcgtgacaa agccctacct ccagctcaac cacagactcg ag 472

<210> 304
 <211> 543
 <212> DNA
 <213> Mus musculus

<400> 304
 gaattcggcc aaagaggcct aagatgacag agggaaaaca taaagacaga ggagctatca 60
 agcgaggaga gcgatctata aattgacaat gaagggtgtaa ttgaaccaga cactgatgcc 120
 cctcaggaaa tgggagatga aaatgcagag ataaccgagg agatgatgga tgaagcaaat 180
 gagaagaagg gggctgccat tgaagcccta aatgatgggtg agctccagaa agccattgac 240

```

ttgttcacag acgccatcaa gctaaatcct cgtttggcta ttctgtacgc caagagagcc 300
agtgtctttg tcaaaactaca gaagccaaat gctgccatcc gagactgtga cagagccatt 360
gaaataaacc ctgattccgc tcagccatcc aaatggcgag ggaaagcaca cagactcttg 420
ggtcactggg aggaagcagc tcatgacctt gcccttgccct gtaaaactgga ttatgacgag 480
gatgccagtg caatgctgag agaagtccaa cctcgggctc aaaaaattgc tgaacccttc 540
gag 543

```

<210> 305

<211> 559

<212> DNA

<213> Mus musculus

<400> 305

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gaattcggcc aaagaggcct atgtcccagg gccaatatac taagcccaag cggaagagag 60
agaaaaagga aaaaaagaag aaacggaagg cagagaaaca tcgtggccga attgggatcg 120
atgaagatga taaggggcct agggcacctc gccacctca gcccaagaaa tctaagaaag 180
caggtgggtg gggtagcaat gctactacac tcagccatcc tggctttggg acttccggag 240
gaagtagcaa caagctacct aaaaagtctc aaaagacagc tccacctgtc cttccactg 300
gctatgattc tgaggaggag gaagaaagca ggcccatgag ttatgatgag aagagacagt 360
taagcctgga tatcaataag ttacctgggg aaaagctggg tcgagtagta catatcatcc 420
aagccaggga accctctcta cgtgattcaa atccagaaga aattgagatt gatattgaaa 480
cactcaagcc gtccacactt agagagcttg agcgatatgt tttatcctgc cttcgaaaga 540
aaccgccgaa agcctcgag 559

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<210> 306

<211> 459

<212> DNA

<213> Mus musculus

<400> 306

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gaattcggcc aaagaggcct aaaaaaacca aacaacaaaa acaaaaaaca aaaaaccccc 60
aaagccaacc aaccaaccaa ttaaaaacga gctggcccac ttatgttgat acgtcagtgt 120
atagtatatga atttgctcct catctggctc ccttggggcc tccctaccac aacctttgga 180
acttcacagg cagagatgga gttggtccag cacattggtg tccctgccag taagatcatc 240
tgtgccaaac cctgtaagca agttgcacag atcaagtatg ctgccaaagca cggggtgagg 300
ctgtgagctc tcgacaatga agtggagctg gccaaaggtg tcaagagcca cccagtgcc 360
aagatgggtc tgtgcattgc taccaggagc tcccactctc tgaatcacct gagcctgagg 420
tttggggcgt cgtgaaatc ctgcagacat ctgctcgag 459

```

<210> 307

<211> 434

<212> DNA

<213> Mus musculus

<400> 307

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gaattcggcc aaagaggcct atgcaaccca aacagcccgg gaccatgctg gcgctccgct 60
ccttgcttcc acacctggga ctgttcctgt gcctggctct gcacttatcc cctccctct 120
ctgccagtga taatgggtcc tgcgtggtcc ttgataacat ctacacctcc gacatcttg 180
aaatcagcac tatggctaac gtctctggtg gggatgtaac ctatacagt acgggtcccc 240
tgaacgattc agtcagtgcc gtgatcctga aagcagtga ggaggacgac agcccagtgg 300
gcacctggag tggaaacatat gagaagtgca acgacagcag tgtctactat aacttgacat 360
cccaaagcca gtcggtcttc cagacaaact ggacagttcc tacttctgag gatgtgacta 420
aaaacaatct cgag 434

```

<210> 308

<211> 499

<212> DNA

<213> Mus musculus

<400> 308

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gaattcggcc aaagaggcct agtgggtgctt tttataaag ctgaggctct gagtgaagag 60

```

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cccattctga agtgggtataa agacgcacat gttgcaaagg gcaaaagtgt cttccttgag 120
caaatgaaga agtttgtaga atggctcaaa aatgctgagg aggaatctga gtctgaagct 180
gaagaagggtg actgaatttt gaaacaacat cctcagtaaa gcaaacagga gttgtagata 240
aaatgtcatg tctcatgtgt cctgggttctt acatcttcct acctccctat atcaagcatg 300
atataagggtc tttcatggca atttttatctt taactgtttt tatggttact ggaaatgttg 360
gctttgggtt ctgaaaccac gtgtgaggag caagctgcag gagccgtaga attgaatctg 420
atgttgcatt ggttttcagt taccttctac ctctgtatt ttctactgta ataatgtgat 480
gtaaggccat ccgctcgag 499

```

<210> 309

<211> 105

<212> DNA

<213> Mus musculus

<400> 309

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gaattcggcc aaagaggcct agagtggctg ctcttcttgc attccaacac atacttgtac 60
ttctctacca aggcaagcaa gatgctcttc cccaagctcc tcgag 105

```

<210> 310

<211> 458

<212> DNA

<213> Mus musculus

<400> 310

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gaattcggcc aaagaggcct aaaaaaacca aacaacaaaa acaaaaaaca aaaaaccccc 60
aaagccaacc aaccaaccac ttaaaaacga gctggccac ttatgttgat acgtcagtgt 120
atagttatga atttgcctct catctggctc ccttggggcc tctcaccac aacctttgga 180
cttcacagcg agagatggag ttggtccagc acattggtgt ccctgccagt aagatcatct 240
gtgccaacc ctgtaagcaa gttgcacaga tcaagtatgc tgccaagcac ggggtgaggc 300
tgctgagctt cgacaatgaa gtggagctgg ccaaggtggt caagagccac cccagtgcc 360
agatgggtct gtgcattgct acccaggact cccactctct gaatcacctg agcctgaggt 420
ttggggcgct gctgaaatcc tgcagacatc tgctcgag 458

```

<210> 311

<211> 578

<212> DNA

<213> Mus musculus

<400> 311

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gaattcggcc aaagaggcct atggcttaca agaagaatct cgtcgagcaa cacattcagg 60
acattgtggt gactacacg ttcaacaagg ttctcatgct gcaggagccg ctgctggctg 120
tgcccgccct ctacatcctg ttcttcaccg tcatcatcta cgtccgtctg gacttttcca 180
tcaccaagga tccagctgca gaagccagga tgaagtggtc ctgtatcaca gacgaggtct 240
taaccttggc caacaagagg ctgggcctct accgtcactt tgatgagact gtcaatagat 300
acaagcagtc ccgggatatc tctacctca acagtggcaa gaagagccta gagacagagc 360
acaaggctgt gaccagcgag attgctgtac tgcagtctcg gctgaagacg gagggctcag 420
acctgtgtga caggggtgag gagatgcaga agctggacgc ccaggtcaag gagctggtcc 480
tgaagtcggc ggtagaagca gagaggctgg tggctggcaa gctcaagaag gatacgtacc 540
tgaaaaacga gaagctcagc tcaggaaaac acctcgag 578

```

<210> 312

<211> 409

<212> DNA

<213> Mus musculus

<400> 312

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gaattcggcc aaagaggcct acctaatggt tcacagaaca ccggtggcgg ttacaaaatt 60
tgaactacag ttcccaagcc atagtaattt tttttttttt tttttgaatt agcgcatgcg 120
ggtttttaac cgcccgcgca tgcgcccttc aactttccgg tgacaagtac agcgtgcgtc 180
ctgtagcagg cgccgggctc atggctttcc tccttcgagt cgtgccaaagg ttgcaggggc 240

```

ccactgcatg gaggaggcct ctacagggac tatggtgctg ctctgggcag ggggattcca 300
 aaaggtgggt ggggagcagg tctccccact cacgggagaa gtcaccaggc accgagaccg 360
 aaacattcca tacaatctac cgttccgag ccatccgagc agtctcgag 409

<210> 313
 <211> 443
 <212> DNA
 <213> Mus musculus

<400> 313
 gaattcggcc aaagaggcct accattatct cccagggcat ggctttgaac tctttgttct 60
 acattctgat ttccttgccct ttcttagtgg gattgggact aaactcacag gcctcactat 120
 ctaatggagt ctgcctaagg ggtgggtggg caggcaaagg catctcatgc tctgatggct 180
 tccccaatag ctctctcatg gcagctgatt ctgtactgag actggcctat catttaagac 240
 actccctaga agacacttct caaaaatctc ctctggccgt ctgcttctgc tctttttttg 300
 ttgttctactg ctgagctgag tgggtgactc ctcaaaacct agtgtcacat agcagttgtc 360
 taggaacaga tatgtcctgg ggtcccaact ggtccctgat tggcaaatgt gtctcagtag 420
 acaatcgagc taacctactc gag 443

<210> 314
 <211> 491
 <212> DNA
 <213> Mus musculus

<400> 314
 gaattcggcc aaagaggcct acagagggtg ggaaagacga aagcgtaatc acagaagaaa 60
 tgaatggtaa agagatgtca ccggggcatg gtcctgggga gactcgtaat gtggagcctg 120
 tggcacacaa agactccacc tccctgtctt ctgagagcag cagcagcagc agtgagagtg 180
 aggaggatgt gggagagtac cagccccacc accgagtga caggggcacc ataagggaag 240
 agcaggagga gtgtgatgaa gagctggagg aagagcccg ccaaggagcc aaggtagtag 300
 agagggaggc agcagtgtcc gacgccgtcc cagacagaca agcaggggcc agtgtgtctc 360
 cagtagaaaac agagggccag gaacatgtag ttgccccaaa gttacctgga gaaaagggtg 420
 cacacggagg cactgctgag caggaccgca gagaagaagc agaggaagac ccgcacagag 480
 ttaaactcga g 491

<210> 315
 <211> 593
 <212> DNA
 <213> Mus musculus

<400> 315
 gaattcggcc aaagaggcct atgacactag acagagcaac tccagcggtta ccgctcccgc 60
 tcttggtttc tcggcttctc atcgagtcata atcttgact ttggggtttt gctactgtca 120
 gaaggacttc tttctgcttc aagtgttga caacgcaccc ctttatcagg gtatcagagc 180
 atcgccacag aatgaagctg gtttccatca ccctgatgtt attgggttca ctgcgtttcc 240
 taggcgcgga cactgcagg ccagatactc ctctcgagtt ccgaaagaag tggaataagt 300
 gggcgctaag tcgtgggaag agggaactac aagcatccag cagctaccct acgggactcg 360
 ctgatgagac gacagtctct acccagactc ttgatccatt cctggacgag cagaacacaa 420
 ctggccccct acaagccagc aatcagagcg aagcccacat tcgtgtcaaa cgctaccgcc 480
 agagcatgaa ccagggttcc cgcagcaatg gatgccgtt cgggacctgc acatttcaga 540
 aattggccca ccagatctac cagctaacag acaaagacaa ggtacagctc gag 593

<210> 316
 <211> 431
 <212> DNA
 <213> Mus musculus

<400> 316
 gaattcggcc aaagaggcct aattgaattc tagacctgcc ttcaactagg atggcctctc 60
 cagggaatgct gctggggctg ctgttgactt cctgtttaac tctctgcctc agctgtcaga 120

```

actcaaataa ttttgcactc accaaccagc agaagagcat ccaccaggaa tcagatacaa 180
aggagaccag ggaagaggag gagctagaca ccgagatccc ggagggtgtc caccctaactc 240
aagagtggca gacccttcaa ccaggtcagg ctgttcctgc aggatcccat gtgcgaatga 300
acctacagac tggagtaaac gaggtgaagc tccaacaaga agacaaattt caaaataatc 360
tgaaggattt taaaagaggc agaaggctgg acatcaacgc caacacatac acatctcagg 420
atcctctcga g                                     431

```

<210> 317

<211> 474

<212> DNA

<213> Mus musculus

<400> 317

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ggaaaagtat ggcaaaccac ataaacggaa aggttttaat gaaggattgt gggagataga 60
taacaatccg aaagtgaat tttcaagtca acaggcatca actaaacaat ccaatgcac 120
gtctgatgtt gaagtggag aaaaagagac taacgtttca aaggaagaca ctgacagga 180
agaaaaggcc agcaatgagg atgtgactaa agcagttgac ataaccactc caaaagctgc 240
caggcgagga agaaagagaa aggctgaaaa acaagtagac actgaagagg cgggaatggt 300
gactgcagca accgcttcta atgtgaaagc aagtcctaag agaggacgac ctgcagctac 360
tgaagtcaag attcccaaac caagaggcag acctaaagtg gtaaagcagc cttgtccttc 420
agacgggtgac atggttattg atgaagataa aagtaaaaaa aaggatgact cgag      474

```

<210> 318

<211> 407

<212> DNA

<213> Mus musculus

<400> 318

```

gaattcggcc aaagaggcct aatttgaaga aagagtattt ggcactgcaa aaagctagca 60
tggcttctct aaaaaaaca atatctcaaa tcaaattgga atcagaaatg gaaacagact 120
gtaaagcgcc tacagcaggc agtgggtcaag agtggtccac ccaggagaag gtcagtgcac 180
aaggcccaaca gtttgtgact ggagtgattg tgaagattgt gaggcgagag cctctaccgg 240
gcaggaaaca agtcaaggat attttggcca caatctcaga agttgtttac attgatttgc 300
tagaaggaga tactgaatgc catgcccgat ttaaaacccc cgaggatgct caggcagtaa 360
tgaatgcaca gactgaaatt aggaagaagc acagttggaa cctcgag      407

```

<210> 319

<211> 572

<212> DNA

<213> Mus musculus

<220>

<221> unsure

<222> (65)

<220>

<221> unsure

<222> (184)

<220>

<221> unsure

<222> (358)

<220>

<221> unsure

<222> (438)

<400> 319

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gaattcggcc aaagaggcct agtactactt gaaaaaatca ggtttaaaat gctctggctg 60
ctganaacaa tgtgccttat tcatgtactt ggtaaaatat tttgtttatt tggaccaaag 120

```

```

aagaatcctg aagctcacat gaatgttagc gagattatta aacactggga ttatccaagc 180
gaanaaatatg aggttggtgac tgatgatggt tacattcttc caattaaccg aattcctcat 240
gggaagaaca atgctaatag ttcagcccca aagatggtag tattttgtca gcatggcttg 300
cttgcaacac ctggagcaag ggtttccaat ccgcctgtca acagcctggc ctctatcnta 360
gcagatgctg ggtatgatgt gtggatggga agcagcagag gaagtacctg ggcaaaagaaa 420
cacgtggccc tcaaccnnga ttctaaagaa ttctgggatt ttagttttga tcaaatagata 480
aaatatgacc ttccagctac cattaatttc attctggata aaacaggaca aaagcagatt 540
tactacattg gccattctca aggaactctg ag 572

```

<210> 320

<211> 353

<212> DNA

<213> Mus musculus

<400> 320

```

atagccacca gctgagcatg gtccatgcct gggaggtaga gatggccctt atagattttt 60
ccaaagggtac attcacccaa ttcttccatg aaacgcacag cggaaagagg cagctcttta 120
gccttgctct tgggcttgta tgcattgagc atggacatct ccacattctg tcctctgacg 180
ggttttggtc gcctctggac tgggtggtgat gaagacttct gggtattgctg gcacacacag 240
atgaagaaga agaggaaggc gatagccagg ggaatggcca cacttggcac cagaatgtac 300
aagattttcca ttttattctt ctctttggaa tctaggcctc tttggccgaa ttc 353

```

<210> 321

<211> 451

<212> DNA

<213> Homo sapiens

<400> 321

```

gaattcagcc ttcattggcct aggtgtcttt ctgtgtaaga gtagtaacat ttataccttc 60
tcgttgcttg tgggtgttct aacaataaat tatatggatt tctttggaag ttgattgtga 120
agaaaatgac taagaaaact ttttttttct ttttaggttg atggaaatca caatcttctg 180
acaaagcttt ctctggaaga ggaaaactgt cttattcagc tgaagtgtga aaaccttcaa 240
caaaaattag aacagatgga cgcagaaaat aaagagcttg agaagaagct ggcaaaccac 300
gaagaatgtc ttaagcacag caatcttaag tttaaagaga aatctgcaga atatacagca 360
ttggccagac aactggaagc tgcttttagaa gaaggaagac aaaagggttg tgaagaaata 420
gagaaaatgt catctagaga gtgtgctcga g 451

```

<210> 322

<211> 307

<212> DNA

<213> Homo sapiens

<400> 322

```

gcgattgaat tctagacctg cctcagacct cccaaagtgc tgtgattaca ggagtgaact 60
gccacgcccc gectacaagt ttttctttaa ctactgcttt agtcaacct atcctctagc 120
ttctgatatt ttcatgtttt gttgtcattt tctagatatt caacaatttc aaattagatt 180
ttctcttcga ctaaaagtga agaatttttt ccggtttatt ttctacatgc taaagatttt 240
tattttcatt ttgttattaa tttctagtgt taccgtattg tcattagaaa atatgggctg 300
gtctgag 307

```

<210> 323

<211> 244

<212> DNA

<213> Homo sapiens

<400> 323

```

gaattcggcc ttcattggcct acaaaattgt gtcttttttt tggcaatgtt gtcttgccaa 60
tccctccctc ccccagctct ccgaacagca ggatttccca acgagcagctt gggaaaaaga 120
cccagtggca gcttggggaa aagaccagc gctccgttta gaagcaact gtatcagcca 180
actgagatgg ccgtcgtgct caacgggtgg accatcccaa ctgctccgcc aagtcacact 240

```

cgag

244

<210> 324

<211> 295

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (89)

<220>

<221> unsure

<222> (116)

<220>

<221> unsure

<222> (119)

<220>

<221> unsure

<222> (122) .. (123)

<220>

<221> unsure

<222> (125)

<220>

<221> unsure

<222> (127)

<220>

<221> unsure

<222> (140)

<220>

<221> unsure

<222> (155)

<220>

<221> unsure

<222> (157)

<400> 324

```

gaattcggcc ttcattggcct aggttagaggt agtttcttaa aggttggttg ccagtgtgga 60
atctgaaact atatcaatga actttctgna ctttattgca ttaaaatcca tcagtntanc 120
tnngnanttt tcttcttttn tttttttttt ttttngngag tctcattctg tctcccaggc 180
cccagtgcag tggcacagtc acattcactg cagcctcaac ttctcaactc aagagatcct 240
gccacctcag tgcccccact ccaccaccca tgagctgaga ttgcaggaac tcgag      295

```

<210> 325

<211> 313

<212> DNA

<213> Homo sapiens

<400> 325

```

gcaaacagac aaggcttaca ggtagttca ggatctgcgc cttatcaagc aaattgtttt 60
gcctatccaa cctgcggtgc caaaccata tactctccta tcctcaatac ctccctccac 120
aaccctccca taaccatta ttcggttctg gatctcaaac atgctttctt tgctattcct 180
ttgcatcctt cateccagcc tctctttgct ttcacttggg ctggccctga caccatcag 240

```

cctcagcaac ttacctgggc tgtactgcca caagccttca cggacagccc ccattacttc 300
agtagccctc gag 313

<210> 326
<211> 538
<212> DNA
<213> Homo sapiens

<400> 326
gaattcggcc ttcattggcct agtgtatata tatggaacat tattcagcca taatgaggaa 60
taaaagcatga cacatgctac aacgtggata aatatcaaaa acattctgct aaatgaaaga 120
agccagacac taaagatcac atagtatata aatccattta tatgaaatat ccagaatagg 180
taaatccata gcaacagaaa gcagattggt ggttgccagg ggctagttag aggggggaaat 240
gggactaaat gcttaatgaa taagggttcc ttttgagatg agtttccttt cgacattttg 300
gaactagata aagggtgatga ttgtacacaa cactgaaatg ttcatttaaa aatgttaatt 360
ttggctgggc acggtggctc atgcctgtaa tcccagcact ttgggaggcc aaggggggca 420
aatcacaagg tcaggagttc gagaccagcc tggccaacat ggtgaaaccc catctctcta 480
aaaatacaaaa aaattagcca ggcgtggtgg tgggtgccta tagtcccagc tactcgag 538

<210> 327
<211> 326
<212> DNA
<213> Homo sapiens

<400> 327
gtcgaccttt ctataaatc atattgttta aaaaaagca agaaaaaag gaaaacaaag 60
gaaaatatcc ccaagattgt tttctagatt tgtggcttta agaaaaaca aacaaaacaa 120
acacattgtt tttctcagaa ccaggattct ctgagaggtc agagcatctc gctgtttttt 180
tgttgttgtt ttaaaatatt atgatttggc tacagaccag gcaggggaaag agacccggta 240
attggagggt gacctcggg gtgggggcag gacgccccg tttcggcaca gcccggtcac 300
tcacggcctc tttggccctc gagaca 326

<210> 328
<211> 456
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (242)..(243)

<220>
<221> unsure
<222> (425)

<400> 328
gaagacgctg ctgttgccgt tatggaacaa ggagtaccag aaaaggaaga gacaccacct 60
cctgttgaac cagaagaaga agaagatact gaggatgctg gattggatga ttgggaagct 120
atggccagtg atgaggagac agaaaaagta gaaggaaaca cagttcatat agaagtaaaa 180
gaaaaccctg aagaggagga ggaggaggaa gaagaggtag aagaagatga agaaagtga 240
gnngagggtg aagaggaggg agaaagtga ggcagtgaag gtgatgagga agatgaaaag 300
gtgtcagatg agaaggattc agggaagaca ttagataaaa agccaagtaa agaaatgagc 360
tcagattctg aatatgactc tgatgatgat cggactaaag aagaaagggc ttatgacaaa 420
gcaanccggt cgacggcctc tttggccctc gagaca 456

<210> 329
<211> 461
<212> DNA
<213> Homo sapiens

<400> 329

```

gaattcggcc aaagaggccg tgacgcccag tctcctcaag aagttccgag gagccagctg 60
gagattcaca ttttacctga ttgccttcat tgccggcatg gccgtcattg tggataaacc 120
ctgggttctat gacatgaaga aagtttggga gggatatccc atacagagca ctatcccttc 180
cccgtattgg tactacatga ttgaactttc cttctactgg tccctgctct tcagcattgc 240
ctctgatgtc aagcgaaagg atttcaagga acagatcatc caccatgtgg ccaccatcat 300
tctcatcage ttttcttggg ttgccaatta catccgagct gggactctaa tcatggctct 360
gcatgactct tccgattacc tgctggagtc agccaagatg ttaactacg cgggatggaa 420
gaacacctgc aacaacatct tcatcgtctt cgccattgtt t 461

```

<210> 330

<211> 390

<212> DNA

<213> Homo sapiens

<400> 330

```

gtcgactatc gcccgtctctg ccgcctcaac ttcggcctca atgtcgtgga gaacctcgcg 60
ttgctagtgc tcacttatgt ctctcctcc gaggacatca ccatccacga aaatgctttc 120
attgtgttca ttgcctcatc cctcgggcac atgctcctca cctgcattct ctggcgggtg 180
accaagaagc acacagatcg caagtcctac agctggaaac agcggctctt catcatcaac 240
ttcatctcct tcttctcggc gctggctgtc tactttcggc acaacatgta ttgtgaggct 300
ggagtgtaca ccattcttgc catcctggag tacactgttg tcttaaccaa catggcggtc 360
cacatgacgg cctcttggc cctcgagaca 390

```

<210> 331

<211> 452

<212> DNA

<213> Homo sapiens

<400> 331

```

gaattcggcc ttcattggcct acattgttct gtactagtgg ttctcaaagt gtggtccctg 60
gaccagcagc atcagcattg cttgggagct tgttaaaatc tcaggcccca tgacagggct 120
attgaatcag acacttaagg atgaggcccg gaggtctgta ttttaacaag cctgtatgtg 180
attgtgattc aggtcaaaagt ttgaaaattg ctgcttcaaa ccagggttgg caaactatag 240
ctctgcaagc tggatctggt tttgtaaagt aagttttatt ggaatatagc cacaccatt 300
catttatgga ttgtctgtgg ctacttttgt gctacaaagg cagagccaca aaggccaaac 360
tatttaccat ctgacctttt acagaaaatg tttgccaact cctgctgtat accattgggt 420
tggagggaatg aaggaggtag gtgggactcg ag 452

```

<210> 332

<211> 535

<212> DNA

<213> Homo sapiens

<400> 332

```

gaattcggcc ttcattggcct agacggcggg gtcgccgggg gcttcggggg ggccctcgcc 60
caggccatcc agccctgtga accgaatgga gtcccacacg ctgttgaggt agttgtgggt 120
tcccctggcc tcgggctcgg cgcagggtca gcgtcctgc aggcggcgct tgcggtacgg 180
gctggcgaaa gtggagacgg acggcaggat ggattcactt ggcgacatgg cggggagctg 240
ggaagacgga caccggtgag tggctgcccg ggagggtcgg tcggggcgcg gacaggcggg 300
catggttctg ccaaggattt tgctttattt atcgcaagat gggggtattt cctccttctt 360
gcagtttata attgcatgaa ttagtgcagt gaattgagga tgcagtataa atatcttcaa 420
agattattaa attcgttatt ataaaacaca tagaagagtt tatgtgtgtg tatggaaagc 480
aggatatacat caataattct taatgaatac aagaaagaac taccaatctc tcgag 535

```

<210> 333

<211> 629

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (200)

<220>

<221> unsure

<222> (202)

<220>

<221> unsure

<222> (364)

<220>

<221> unsure

<222> (393)

<220>

<221> unsure

<222> (571)

<220>

<221> unsure

<222> (594)

<400> 333

```

gaattcggcc ttcattggcct acatgcttgg tggagctaca gcagacctgt ggagtggaaag 60
agtaaggcgg gctctgcagg gcagtgggcc gggaccatga gagaggcggg tcagtctggg 120
ctccaagctc agcctctcgg attccccggg acccacggct tataatgcgc ttaaattccca 180
cgcttcggcc gagagacagn angtcaccgt caccgtcacc gcctagcgcc ctgacccgc 240
tcccactccg ctgcagcgga ggggtgtgtga gggagaggac gcagggaggg aaaagcgttg 300
ggagggcaaa catcttttca taagcttttc cccttctata tgccatctct gatgggagcc 360
tctntagatc ttctgtccat ttactaattg ggntgttcga tttcttattg ttgagttgta 420
agtggttttt aatgggtctg atgccagaca ggtgttttgc aaatatatttc tccgtctgtg 480
gcttgtttct ccattctctt atttcttttc ccagagcaaa agtttttaat tgtaacgact 540
tcataccaat atcttctttc atggtagaaa nttgtctttt atgtacttta ctgntgtatc 600
tacaaagtaa ttgccaaacc caactcgag 629

```

<210> 334

<211> 329

<212> DNA

<213> Homo sapiens

<400> 334

```

gcttcatggc ctacaagcaa atcattttcaa tcctggagtc catgtcaaat gacacgagcc 60
ttctgacaa gtgtaactca ttctacaca acaaggcgga gtggagggtc gaaattgagg 120
caactcttga gaggtctaaag aaactagagc gtgatctcag cttaaggag caggagctta 180
aagaacgaga aagacgttta aagatgtggg agcaaaaagc gacagagcag tccaacaccc 240
cgcttctctt gcctcttctg gcaagaatgt ctgaggagtc ttactttgaa tctaaaacag 300
aggagtcaaa cagtgcagat tcactcgag 329

```

<210> 335

<211> 556

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (131)

<400> 335

```

gaattcggcg ttcattggcct aaatcctctc taataaataa tataggccag gcgcggtggc 60

```

```

tcacacctgt aattccagca ctttgggagg cggagggtggg cggatcatga ggtcaagaga 120
tcgagaccat ncctggacaa gatgatgaaa caaaaattag ctgggcgtgg tggcgacgc 180
tatagtccca gctactcagg aggctgaggc aggagaatag cttgaatccg ggagacggag 240
gttgcagtga gccgagatgg cgccactaca ctccagcctg gcaacagagc aagactctgt 300
ctcaatgaat aaataaataa ataatatagc cataaaatta tataattcca tgtttggttt 360
tattagttaa tttagaataa atatcttaaa ataagttttt atacaatctc attattttta 420
actcagaaaa taattcagat agaagtccg atctccacga aataacattt aattggttca 480
tcaaaaagag cataccatct ttattaaaac actgccatta atgcttttat ttttgcagat 540
agccagtctc ctcgag                                     556

```

```

<210> 336
<211> 594
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> unsure
<222> (311)

```

```

<220>
<221> unsure
<222> (339)

```

```

<220>
<221> unsure
<222> (547)

```

```

<400> 336
gaattcggcc ttcattggcct agttgaatta cttttatatt cagaaaaaag catattttta 60
ataaaaaatt gagttcctct aggttggttaaatgtcagtgaaagggttga agaattcttc 120
agaaagaaga aaggagcctc agagacagag acctgtctcc ccagaggaga tggagacaga 180
gtggagcctg actgcctgga gtcgttctgc tgggagaaag cctggttgct gtggcacatg 240
cgtggcaggc tggaaatgat accctgtggg tatggtgctc tgttctgcat taattcaggc 300
tccaggtctc ntacatctcc tgtaaggacc agggagcang cagctgcagg agaaggggga 360
tgcggggggc catgggatta caaattctca cagcagccga gccagggcag agaaaccctc 420
cctgtgaagt gagttgaata gtgtccttcc cccatacccc ctaaaaactg acgtccactt 480
ggaacctcag aatgagaact tattgggaaa tagggatttt tgcagatgta atgatttgag 540
gatgtcnggg ttaaaatgat cagactgggtg tctttataag agtaaaagct cgag 594

```

```

<210> 337
<211> 331
<212> DNA
<213> Homo sapiens

```

```

<400> 337
gaattcggcc ttcattggcct actacaattc tcataacttc caaaatctat tttcttctc 60
ataacctgaca catatacctt ctgctcccta gatecttttg ctagactcac tcttttttga 120
gtctcccaaa ttaccattgt tcccggcctg gacttcaatc cagcctgtca cattattcct 180
gataccacac ctgaccccca tgactgtatc tctcgatac acctggcatt cgtccattt 240
ccccaaattt tcttcttctc tgttctctac cctgatcaca cctggttttag tgatggcagt 300
tccaccaggc ctaatcaaca cacacctcga g                                     331

```

```

<210> 338
<211> 522
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> unsure
<222> (31)

```

<400> 338

```

gaattcggcc ttcattggcct agctttgaag naactgtgat gtgtctgatt gcttaaaacc 60
aatcacttttc gggacttaga agtgggagaa aggattctct cagggccatg tggcatggtg 120
ccgtatcacc gcctgtcatt cacacatgca gggaggggcac cgggagaaaa tctttaaaat 180
attggcatgc cataagggaa gggtttatgg gttgtttttt tttttttttt tttttttgac 240
tgttcacttt gtgggggtgat taaacaaaaa aacctcagcc attattctct aacagctgtt 300
gtgccttacc tcaataaagt gccttttacc ataacacagc atcttttagac tctataaatc 360
tctttctatt tattgtgttt aaatgataaa tgctttccaa taaaatgaca tcatgggtct 420
ggagagtgat gttcattttc tgagttactc ttaaatgttg ttgatttgaa tttttttatt 480
aggatgttgt ataatatgaa tctcagccac aggccttctcg ag 522

```

<210> 339

<211> 565

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (105)

<400> 339

```

gaattcggcc ttcattggcct agagtttttg aacctttctt taaatttatt tttatagaaa 60
aggataaaca cattcttata catattatct gggaaacgag ggaangtatt atgtatccca 120
cagggtctgt ttggtcttag agaagcacag aaacatgatt taaattgcta aacctgcca 180
taccattaga aaaaaaatca gaaatttctt tggcacaata ctctccattg gttataaaag 240
gactaagagg tggagaactg tttatataat tttatataca caaagacatg tgtataatgt 300
tccagaattt gtcataagct aactgaaaga aagtataagg atcacttagt gccttcttac 360
agtgaagtat aaggatcatt tagtgtcttg tttacaattt agcaatagat tatctggtag 420
aatttggagc agaaaggact cagttcatct catgggtaac tcaaccctaa tttgtcaaaa 480
ataaaaaaaa gtgacgtaaa aagagttcct ttaaataagt tgaaatgact ttttagtaaa 540
gttttatttg caagctgaac tcgag 565

```

<210> 340

<211> 616

<212> DNA

<213> Homo sapiens

<400> 340

```

gcaaaaacag gaaatggagg ttaagatgga ggaggaaact gaggtaaggg aaagtgagaa 60
gcagcaggat agtcagcctg aagaagttat ggatgtgcta gagatgggtg agaattgcaa 120
acattgtaatt gctgaccagg aggtaatgga aactaatcga gttgaaagtg tagaaccttc 180
agaaaatgaa gctagcaaa gaaatggaacc agaaatggaa tttgaaattg agccagataa 240
agaatgtaaa tccctttctc ctgggaaaga gaatgtcagt gcttttagaca tggaaaagga 300
gtctgaggaa aaagaagaaa aagaatctga gccccaacct gagcctgtgg ctcaacctca 360
gcctcagctc cagccccagc ttcagcttca atcccagtc caaccagtac tccagtccca 420
gcctccctct cagcctgagg atttgtcatt agctgtttta cagccaacac cccaagttac 480
tcaggagcaa gggcatttac tacctgagag gaaggatttt cctgtagagt ctgtaaaact 540
cactgaggta ccagtagagc cagtcttgac agtacatcca gagagcaaga gcaaaaacca 600
aaccaggagc ctcgag 616

```

<210> 341

<211> 344

<212> DNA

<213> Homo sapiens

<400> 341

```

gaattcggcc ttcattggcct agaaatcatt catatttatt atcattctgc atgttcagcc 60
tttttcttc cctagaatca gtcttgatta cttttaagg gactttacta atctttatct 120
tctctccat cttgccatca ctgacctgcc tcaatccctg ttcaactctc tcttattcag 180
tctcctatgt ggattgtccc actgccttct gtccctctgc cagccacaag gcagctctatt 240

```

taggatgcag atctgtttct gtcacccac tgctagaccc ccgcagtggc tcctcacaac 300
cagcctatag cagacaagct tttattagag cagacagact cgag 344

<210> 342

<211> 286

<212> DNA

<213> Homo sapiens

<400> 342

gaattcggcc ttcattggcct acactgattg tttctcattt ttttccatct gctacctcat 60
tatatctacc aagatatcaa tccacttaat ttttttttcc tgaaccattt cagggttaagt 120
tgcagacagg atagcccttc accttaaata attcagtgcata tatactccaa gaacaagaac 180
atgtttttacg tgaccacagt gcataattat caaaatcata atggtgcata ctactatcca 240
gttgtggtgt atgattttta tatgtttatat agagagaaac gccgag 286

<210> 343

<211> 338

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (194)

<400> 343

gaattcggcc ttcattggcct agcttgggtct tcccccgtaa ggaaatggcc ggggagctcc 60
aggggaccca ggcgcgctcg ctctggcgga gcctgggctg accagccagg acagcgggggt 120
aaaccggaac aattctgcgc gaggtaggga ggccatggcg tccggcagta actggctctc 180
cggggtgaat gtcntgctgg tgatggccta cgggagcctg gacttgaaag aggagattga 240
tattcgactc tccagggttc aggatataca gtatgagccc cagctccttg cagatgatga 300
tgctagacta ctacaactgg aaaccaggg ttctcgag 338

<210> 344

<211> 277

<212> DNA

<213> Mus musculus

<400> 344

gaattcggcc aaagaggcct aaataattgt tggcaaagat ccttttgctt ttttcggcat 60
gcaagctcct agcatctggc agtggggcca agaaaataag gtttatgcat gtatgatggc 120
tttcttcctg agcaacatga ttgagaacca gtgtatgtca acagggtgcat ttgagataac 180
tttaaatgat gtgccagtgt ggtctaagct ggaatctgga catcttccat ccatgcaaca 240
acttgttcaa attcttgaca atgaaatgaa actcgag 277

<210> 345

<211> 291

<212> DNA

<213> Mus musculus

<400> 345

gaattcggcc aaagaggcct aaccgcagca agttaagatc tgtgtctgtg gacctgaatg 60
ttgacccatc gcttcagatc gacatacctg atgcactcag tgagagagat aaggtaagc 120
ttacagtgcata caccaagacc acactgtcca catttcagag cccagagttt tctgttataa 180
ggcaacatga agactttgtg tggctgcatg acactcttac tgaacaacg gattatgctg 240
gccttattat ccctcctgct cctacaaagc cagactttga tggccctcga g 291

<210> 346

<211> 438

<212> DNA

<213> Mus musculus

<400> 346

```

gaattcggcc aaagaggatt gaattctaga tctgcctcga gactgttcgt gatgagtgga 60
ccctggaaaa gactaataat cctcttaagt tgcgcttgcg tcgcaagagc gactcagaac 120
agagacatca accctcatac tccaattcaa caatcctggg aagtgcctaa tgaggagggg 180
gacactgtat ggtcgaccac cgcagtacaa ccccatgga cctgggtggc cgacctcaca 240
cctgataattt gtaagttagt agcagggtca cttacctggg acctccccga ccatacggac 300
cttcataaac caccacctga taaacagtgt gtcccagagc ggataggagg cacgttttga 360
tgctcaggac agttctaccg agccaatctt cggctctgcag aattttatgt ttgccctggc 420
caaggccaac cactcgag

```

438

<210> 347

<211> 664

<212> DNA

<213> Mus musculus

<220>

<221> unsure

<222> (9)

<220>

<221> unsure

<222> (108)

<220>

<221> unsure

<222> (125)

<400> 347

```

gaattcggnc aaagaggcct aggagccttg aagactttgc aactttggac caagcacaat 60
gaagtattcc ctctgggctc tgctgcttgc cgtgctgggc acacagcngc tgggaagcct 120
gtgtgccacc gttcgggtccc agaggttccg aggaaggata cagcagggaac gaaaaaacat 180
cagacccaat attatccttg tgctcactga cgaccaggat gtggagctgg gttccctgca 240
agtcattgaac aagacgagaa agatcatgga acagggtggg gccaccttca ccaatgcctt 300
tgtgaccacg cccatgtgct gtccatcacg ctcatccatg ctactggga agtacgtgca 360
taaccacaat gtctacacca acaatgagaa ctgctcgtct ccctcgtggc aggcaatgca 420
cgagcctcgg acctttgctg tgtatctcaa caacaccggc tacagaacag ccttttttgg 480
aaaatacctc aatgaataca atggcagcta catccctcct ggatggcgag aatggctcgg 540
attaatcaag aattctcgtt tctataatta cactgtttgt cgcaacggca tcaaggagaa 600
gcatggattc gattatgcaa aggattactt cacagactta atcactaacg agagcatact 660
cgag

```

664

<210> 348

<211> 459

<212> DNA

<213> Mus musculus

<400> 348

```

gaattcggcc aaagaggcct aaaaaaacca aacaacaaaa acaaaaaaca aaaaaccccc 60
aaagccaacc aaccaaccaa ttaaaaacga gctggccac ttatgttgat acgtcagtgt 120
atagttatga atttgcctct catctggctc ccttggggcc tcctcaccac aaccttttga 180
acttcacagg cagagatgga gttggtccag cacattggtg tcctgccag taagatcatc 240
tgtgccaacc cctgtaagca agttgcacag atcaagtatg ctgccaagca cggggtgagg 300
ctgctgagct tcgacaatga agtggagctg gccaaagggtg tcaagagcca cccagtgcc 360
aagatgggtt tgtgcattgc taccaggac tcccactctc tgaatcacct gagcctgagg 420
tttggggcgt cgctgaaatc ctgcagacat ctgctcgag

```

459

<210> 349

<211> 568

<212> DNA

<213> Mus musculus

<220>
 <221> unsure
 <222> (120)

<220>
 <221> unsure
 <222> (165)

<220>
 <221> unsure
 <222> (391)

<220>
 <221> unsure
 <222> (478)

<400> 349
 ctcgagggat ggtgccgctg tactgcctaa atgtgttggc ggcggtggtg ccacaggggtg 60
 agatgctgca tgagaagata tctgagaatg gaaagcatgg acaggatgcg gaatcacgtn 120
 atccacttga gggggaggct gagtctgggg aggggcattt ccatnagagt gatggcaagc 180
 tgaggcttga tgggtgcagtg gtcttgtcaa ggaagcatac ggaggtggca tgtagtgccg 240
 acatgacgaa agagaaggct gtggaggggg ctggggctgg ggctggggcaa ccatgctgga 300
 gccatagcca tctattgata atggctgagt cggggcagca gcagcctgat ggccaaagac 360
 tgcggcgccg gcaagatggg caagtgtcgt ngctctccgaa ctgcccggaa gctccgcagt 420
 caccgacggg accagaagtg gcatgacaaa cagtacaaga aagcccactt gggcacancc 480
 ctgaaggcca atccgttttg ggtgcctct catgcaaagg gaattgtgct ggaaaaagca 540
 ggggaagtag gcctcttttg ccgaattc 568

<210> 350
 <211> 447
 <212> DNA
 <213> Mus musculus

<400> 350
 gaattcggcc aaagaggcct aaaagacaac ggacaagcgc catttaccat cattcctgtg 60
 ttttcagatc tttcaatcct tgggatggag cccatgagaa atgccaccaa aggctgcaat 120
 gagtctgtag atgaggtcac ggggccatgt agctgccagg actgctccat cgtctgtggc 180
 cccaagcccc agccccacc cctcctatg ccttggagga tctggggctt ggatgccatg 240
 tatgtcatca tgtgggtcac ctacgtggca tttctgtttg tgttttttgg agcactgttg 300
 gcagtgtggt gccacagaag gcggtacttt gtgtctgagt acactcccat tgacagtaac 360
 atcgcccttt ctgtgaatag cagtgacaaa ggggaagcct catgctgtga cccacttggc 420
 gcagcatttg atgactgtca actcgag 447

<210> 351
 <211> 156
 <212> DNA
 <213> Mus musculus

<400> 351
 gaattcggcc aaagaggcct aattgaattc tagacctacc ctggcttgtg gatgactggg 60
 acttgatcac cagacagaag cagctttttt atcttctgc caagaagaat gtggattcca 120
 ttttgaggga ttatgcaaat tataagaagt ctcgag 156

<210> 352
 <211> 434
 <212> DNA
 <213> Mus musculus

<400> 352
 gaattcggcc aaagaggcct agccaagcag gagagaagag gcttttcagt cataaagacc 60

```

aaccagcaca ctgcaaggac catgaggcca ctgtgtatga cctactggtg gcttggactg 120
ctggccacgg tcggagctgc tacaggccca gaggctgacg ttgagggcac agaggagggt 180
cacagagaga gtacatttac ctcaacaggt acaagcgggc aggtgagttc cccgacaagt 240
gcacctacac ttctattgtg cccagcagc gggtcacagg tgccatttgt gtcaactcca 300
aggagcctga ggtgcacctg gagaaccgtg tgcacaagca ggagctggag ctgctcaaca 360
atgagctgct taagcagaag cggcagatcg agacgctgca gcagctggta gaggtagaca 420
gaggcactct cgag                                     434

```

<210> 353

<211> 471

<212> DNA

<213> Mus musculus

<220>

<221> unsure

<222> (9)

<220>

<221> unsure

<222> (20)

<220>

<221> unsure

<222> (30)..(31)

<400> 353

```

gaattcggnc aaggaggccn actttttggn nccttcttca gttcctggac tgatttccct 60
caaagttag cgttctgtgg atgcacagac agagagatga gatgactaaa gcttttgcgt 120
ccctgaaaag catgatgggt tccagatgtt gaccattgag ccagaagggt tatattcacc 180
tgagtgtgag ttgtctaagt gtaattgttc ctatgcccta gttctttaac gttaacataa 240
aaatgcattt attagttttg aaccttttag aattttgcag ttaggagaaat ttgaattatt 300
agaaagacct tgaactttta aagtgttaat ttttttaaac caggagaaat ttacttttta 360
tataaatatt tagtattagg atattaacct gagattttga agacaaagaa aggaaagtgt 420
tgatttaaca gtgaggtatt tgtgtgttct atttacacag gaaatctcga g 471

```

<210> 354

<211> 421

<212> DNA

<213> Mus musculus

<400> 354

```

gaattcagag gccccagtct gtagtcccgg aagaatgaag atttaaatac gaggccatgg 60
ctaaacatct gaagttcatt gccaggacag tgatggttca ggaggggaac gtggaagggt 120
cctaccggac cctgaacaga atcctcacca cggatgggct taccgaagtc ataagtcgac 180
gacgctacta tgagaagcct tgccgcccgc gccagcggga gagctatgaa acatgccgga 240
ggatctacaa catggaaaatg gctcgaaaaga ttaacttctt gatgcgaaag aaccgtgcag 300
acccgtggct gggctgtctga ggcttggggc taggcacca cacaacctg tccaactcct 360
ttctttatcc agccaagttc tgttactttt ctctataata aaaactccat cacaactcga 420
g                                     421

```

<210> 355

<211> 408

<212> DNA

<213> Mus musculus

<400> 355

```

gaattcggcc aaagaggcct aaagggtttc aagctttcag ttttgggaca ggtatggatg 60
ataaagggca cctgagcaat gaggaagcac ccaaggctat caaaccacc agtaaggagt 120
tcaggaaaac ctgggggtttt cgaagaacca cgattgcaa acgtgagggt gcaggagaca 180
cggagggtgga cccagtgtag cagcaaccac agcagcataa cctctccctg cggcgcagtg 240

```

```

gacggcaacc aaaacgtact gagagggtag aagagtttct taccacggtt cggcgccgag 300
ggaaaaagaa tgtgccgggtg tccctggagg attccagtga gcccacatct tccacagtca 360
ctgatgtgga gacagcttcc gaggggagcg ttgaaagcag ttctcgag 408

```

<210> 356

<211> 434

<212> DNA

<213> Mus musculus

<400> 356

```

gaattcggcc aaagaggcct atgcaaccca aacagcccgg gaccatgctg gcgctccgct 60
ccttgcttcc acacctggga ctgttccctgt gcctggctct gcacttatcc cctcccctct 120
ctgccagtga taatgggtcc tgcgtggtcc ttgataacat ctacacctcc gacatcttgg 180
aaatcagcac tatggctaac gtctctggtg gggatgtaac ctatacagt acgggtccccg 240
tgaacgattc agtcagtgcc gtgacctga aagcagtgaa ggaggacgac agcccagtgg 300
gcacctggag tggaaacatat gagaagtgc acgacagcag tgtctactat aacttgacat 360
cccaaagcca gtcggtcttc cagacaaact ggacagttcc tacttctgag gatgtgacta 420
aaaacaatct cgag 434

```

<210> 357

<211> 502

<212> DNA

<213> Mus musculus

<400> 357

```

gaattcggcc aaagaggcct agtctacaaa gcctggctct gctcccagta ttttgaagtc 60
acacagttta actgcagaaa gaccattcct tgcaagcaat attgcttggg ggtgcagaca 120
agggtgtccat tcataattgcc cgacaatgac gaagtcattt acggaggcct ctccagcttc 180
atctgcacag gcgaagggtga agtttacctt tgaatgccta agaagaaatg actattggct 240
ctacgaaacc ttcttaacca atgatgaacc cgaatgctgt gacatcagga gcgaggagca 300
aaccgcaccc agacccaaag gaaccgtgga cagaagagac tctgttccca ggacatcgct 360
cacagtgtcc tcggccacta gactgtgccc cggccggctg aagctgtgtg tactcgctct 420
cattctcttc cacacagtgc tcacggcctc cgcagcgcag aactccacgg gactgggcct 480
gggtggcctc cccacgctcg ag 502

```

<210> 358

<211> 411

<212> DNA

<213> Mus musculus

<400> 358

```

gaattcggcc aaagaggcct agtttattat tattatTTTT cgctgctaag aagctaagat 60
cgttcaccct cattcacatt aacagtacct agctgtaatg ttacacggtg tgctgctatt 120
ttagaaacat tgttataata tattatTTTA ctgcttaaat ttcaagctcc gaggtagatg 180
gtcgagagac gagttctctg tactggaaaa gccttttctc ctgtccctgt ccttctggta 240
gcacgatggg gctgcgttgc gtttggttcc gtttggttcc ttttcttccg tgctcttca 300
ttaccagggt ttctttcttc ctctgaccac attcttcaaa gagagtattc tttacctcag 360
gtttactgga caaaaacaaa acaaaaacaaa accaatagtg ataacctcga g 411

```

<210> 359

<211> 427

<212> DNA

<213> Mus musculus

<400> 359

```

gaattcggcc aaagaggcct aagacctgcc tcgagttttc tgagctgaca ccatgaaggc 60
cctcccagcc ctgccactga tgctgatgct gctctccatg cctccccctt gcgccccgca 120
agcctctggg atccggggag atgctctgga gaagtccctg cttcagcaac ccctggactg 180
tgatgatatc tacgcccagg gctatcagga agacggcggtg tatctcatct acccctatgg 240
ccccagtgtg ccggtgcccc tcttctgcga catgacaact gagggcggca agtggacggt 300

```

```

tttccagaaa agattcaacg gctcagttag tttcttccgg ggttgaggcg actacaagct 360
gggctttggc cgtgctgacg gggagtactg gctggggctg cagaacctgc acctactgac 420
actcgag                                         427

```

<210> 360
 <211> 580
 <212> DNA
 <213> Homo sapiens

```

<400> 360
gtccccctct ctcggtttcc tcccccatcc ccttgactct cccctcccag ccctcgctct 60
ctcgctcgcc ctacagcgcg ccccgcccat gacggaggcg ggtgcccgtg ccgttgccgc 120
cgctgccgtc gcaggggggg agtcgggttc ccagaaagta gcttgatgag tgtccaaagt 180
agcagtggaa gtttggaggg gccgccatct tgggtcccagc tctccacgtc tccaaccccg 240
ggctcggcgg cggcggccag gtccctgctg aatcacacgc cgccatccgg gagggcccag 300
gaaggtgcaa tggatgagct tcatagtctg gatccaagaa ggcaagagtt attggaagct 360
agatttactg gagggtcaa tgggagcact ggaagtacgg gcagttgcag tgttggagct 420
aaagcctcaa caaataacga aagctctaat cacagttttg gaagcttggg atctttaagt 480
gacaagaat cagagacacc ggagaagaaa caatcggaat catccagggg aagaaagaga 540
aaagcagaaa accagaatga aagtagtcag ggcactcgag 580

```

<210> 361
 <211> 294
 <212> DNA
 <213> Homo sapiens

```

<400> 361
gaattcggcc ttcattggcct agacagacca aggtaaattg tttttgataa ttacagaagt 60
gtgattttct aatcagcagc tgtcaaaccat agtggttcctt aattttaaag ctggaacact 120
aaattataaa ttggagaggt tggaaataatt acggtcatat ctctagaaac acaagtcttt 180
agtagcaaaa aagaaattag caagagaaga aaactgttca gtactttgaa aggaaaaagt 240
tttcagtgat agttttttta gatgaaaaat aacatgataa agaagggact cgag 294

```

<210> 362
 <211> 174
 <212> DNA
 <213> Homo sapiens

```

<400> 362
gcgattgaat tctagacctg cctcgagaca ggtgccatta taggaacagc cctcttttgt 60
aatcttcacc ccagcctcac tccagtcacg ctgccctggt ggactgggat gacctttctc 120
cccacacca ctctgtggac cttgctctgt acgatggcta agcccaaact cgag 174

```

<210> 363
 <211> 558
 <212> DNA
 <213> Homo sapiens

```

<400> 363
gaattcggcc aaagaggcct agtctctggt agcttttcca gctctttcct tgcgcgttat 60
caaccctttc ccaggagctc gctctgctc ttttgctggc ttctcgtttt ctctctact 120
ctccacgttg gattccaggt ccaagtggct atctgggctg tcgctctcct ctgtgtcttc 180
cccgctgaa ctgtcacctt ctctctcgtt gctctcaggg tcaactggctt ccttgccttg 240
ctctctctgg acatcttctt cgacattcat ctttccatct ttgtaggaaa gcaaacgcct 300
gtcatcttta tctagcacga agccatcatt cagatcatct gctgacatat gttttggttt 360
cttaacattt tcacctctat cctttccaag cattcttcga agtctctcag cctccagctt 420
cctgaggtgc tctctgctct cctttgcaa tcttgctctc gtcttcctc tgttagaggg 480
ctgcgccttc atttcaaagc caagctcgcg aaccatcatg tcatatgcat cgggcttggg 540
tttttccttt ttgtctct 558

```

<210> 364
 <211> 233
 <212> DNA
 <213> Homo sapiens

<400> 364
 gaattcggcc aaagaggcct aatgatggag ggaatctgat aaagacatct tataaattca 60
 acagacacaa aagaatttga tctcccataa gcaactgtga aattacaata acagatcctg 120
 ggaagtctta caattctaat tcagtttttt caagggggaa catggcaaaag gtgttcagtt 180
 tcacccctgt taccaccgct ctgataatgg gcagggaaat ttcggcgctc gag 233

<210> 365
 <211> 276
 <212> DNA
 <213> Homo sapiens

<400> 365
 gctagagggt gaagctggcg gagcaggagg atgggcggtg atagactaga gaacaagacc 60
 tctgtctccg tagcatcctg gagcagtcctg aatgccagaa tggataaccg ttttgtctaca 120
 gcatttgtaa ttgcttgtgt gcttagcctc atttccacca tctacatggc agcctccatt 180
 ggcacagact tctgggtatga atatcgaagt ccagttcaag aaaattccag tgatttgaat 240
 aaaagcatct gggatgaatt cacaagtgc ctcgag 276

<210> 366
 <211> 335
 <212> DNA
 <213> Homo sapiens

<400> 366
 gaattcggcc aaagaggcct aatccagtca gactctggca acttttaggt ggtactttct 60
 attttaacac ctcaagggtg aagcagaaga ataaggagaa ggataagtcg aaggggaagg 120
 cgcttgaaga ggacgaagag gagaggagac gccgtgagcg ggacgaccag atgtaccgag 180
 agcggctgcg caccttgctg gtcacgcggt ttgtcatgag cctcctgaat gctctcagca 240
 ccagcggagg cagcatttcc tggaacgact ttgtccacga gatgctggcc aagggcgagg 300
 tgcagcgcgt ccaggtggtg cctgatgaac tcgag 335

<210> 367
 <211> 281
 <212> DNA
 <213> Homo sapiens

<400> 367
 gcgggataat gtgtttcagc gatgaaccac ccatggcctt actacagaca tatttccact 60
 ttgaaaatgt gtgtgagtg acatgtctgt gtgtgaggca gagattagaa agtgtaagt 120
 tgtgcgtttt cattttacac atcttacatt ttcctttaat ttgtttgaaa gcctgttttg 180
 tttgtggcct ccattcctgg aagtcctatg agttgttagt ggtgaagatg gaacagatgt 240
 gtccaaccgc ggggactcct gccctcaggg acacactcga g 281

<210> 368
 <211> 300
 <212> DNA
 <213> Homo sapiens

<400> 368
 gaattcggcc ttcattggcct aggtactgt cctctctgat caacctggat tgcagggtccc 60
 aaggcacttt ttgtttttat ggcattatcc tttgcccgtg atgaaatcat ctggctactt 120
 cgtcatgcag ataacatgcc aaagaagagt gcagacgact ttatagataa gcacattgct 180
 gaattaatat ttacatgga agaacttaga gcacatgtga ggaaatacgg acctgtaatg 240
 cagagggtatt acgtgcagta cctttctggc tttgatgctg ttgtcccaa tgaactcgag 300

<210> 369

<211> 484

<212> DNA

<213> Homo sapiens

<400> 369

```

gcgaagggtga tccagacgca agatgggtgt cctctctaag gaatatgggt ttgtgcttct 60
aactgggtgct gccagcttta taatgggtggc ccacctagcc atcaatgttt ccaaggcccg 120
caagaagtac aaagtggagt atcctatcat gtacagcacg gacctgaaa atggggacat 180
cttcaactgc attcagcgag cccaccagaa cacgttgga gtgtatcctc cttcttatt 240
tttcttagct gttggagggtg tttaccaccc gcgtatagct tctggcctgg gcttggcctg 300
gattgttggg cgagttcttt atgcttatgg ctattacacg ggagaacca gcaagcgtag 360
tcgaggagcc ctgggttcca tcgccctcct gggcttggtg ggcacaactg tgtgctctgc 420
tttcagcat cttggttggg ttaaagtggt cttgggcagt ggacccaat gctgccaact 480
cgag

```

<210> 370

<211> 316

<212> DNA

<213> Homo sapiens

<400> 370

```

gaattcggcc ttcattggcct acaaccccat catcaccag ttcttccca cctgctgct 60
gtgggtgcttc tggccctcc tttccaccat cgtctactac tcagccttct ttgaagccca 120
ctggacacgc tctggggaga acaggacaac catgcacaag tgctacactt tctctatctt 180
catggtgctg ctctaccct cgctgggact gagcagcctg gacctcttct tccgctggct 240
ctttgataag aaattcttgg ctgaggcagc tattcggttt gagtgtgtgt tctgcccga 300
caacagcgcc ctcgag

```

<210> 371

<211> 255

<212> DNA

<213> Gallus sp.

<400> 371

```

gaattcggcc aaagaggcct acaagaaaa gaaagaaagg gaaagaagag gaaaaacatt 60
tataaatgcc attgtctaatt gtcttttcaa tttaaacgta acatgattat ctacatatat 120
ctacaaatat ctacaattat ctacactgtt tgcagatacg attctttggt tatcttact 180
tttcccttat gttgcaacta tcaagaaaa aatgtttgta taccctttga aagaaataat 240
aaatataacc tcgag

```

<210> 372

<211> 253

<212> DNA

<213> Gallus sp.

<400> 372

```

gaattcggcc aaagaggcct aggtgggtga aagaacaggt tgcaattgaa ttctgggttt 60
cagagctgga ataagatagt tttttccccc cacgttgac gttttccccc ccccatgtt 120
gcacgctatg gggttttggc tggatcagc attactccac caaggggctg tttgctgtct 180
gggtacttgc caggtgataa gaatgttagg gcaggaccaa aatatgtcaa cagtgatact 240
ggaaacactc gag

```

<210> 373

<211> 287

<212> DNA

<213> Gallus sp.

<400> 373

```

gaattcggcc aaagaggcct aggacattgc tccgtgagaa aatgaagact ctgcaagctg 60

```

```

cttttttccct ggttgcgttt gtaccttttg tgaagccagc accacctata cagcaagatt 120
cacccaagtt ttatgagtat gttgatgcag attttgccac ggaagcctg atccaacagg 180
attatgaaat gctgccaag gatacaataa aggatggaac aaatgtttct cttgacactg 240
ccctgagact gcaagcagat gacagcgaac tgagtgccag actcgag 287

```

<210> 374
 <211> 427
 <212> DNA
 <213> Gallus sp.

```

<400> 374
gaattcggcc aaagaggcct aaagcgacag aggactagag atgaagatct ttttattatt 60
caccttttcc acgtttttct tgtctgcttt tgaacaagca gccgcactctg ctcactatga 120
caagatttta actcatagtc gaataagggc acgcgaccaa ggcccaaag tctgtgccct 180
tcagcaagtt atgggaacca aaaagaaata cttcagcacc tgcagaaact ggtaccaggg 240
atccatctgt ggaagaaaag caactgtctt atatgagtgc tgcctggct acatgaagat 300
ggatgggtatg agaggatgtc ctgcagttgc tcctattgat catgtatatg gcactcttgg 360
tattgtggga gctacctcca ctcagcagta ttctgacatg tcaaagctga gagaagagat 420
actcgag 427

```

<210> 375
 <211> 204
 <212> DNA
 <213> Gallus sp.

<220>
 <221> unsure
 <222> (74)

<220>
 <221> unsure
 <222> (76)

<220>
 <221> unsure
 <222> (115)..(116)

```

<400> 375
gaattcggcc aaagaggcct agtttttggc tttttttttt tctttttctt ataaataatg 60
aagacaccga catntncttt gtgtgtgtgt gtgtgtgtgt gtgtctcctc gtgtnnacaa 120
agccttatct cagaactggg catctcccag ttctccctgc tccttctga gcctcatttg 180
agttaccaac cccaccact cgag 204

```

<210> 376
 <211> 279
 <212> DNA
 <213> Gallus sp.

<220>
 <221> unsure
 <222> (41)

```

<400> 376
gaattcggcc aaagaggcct aatgacagac tttttttttt nctgggtgtg tttaaagtcg 60
atttcccccc ccttccccct ccatgtgtta attttgagag tccttttatg cgcgcgcccc 120
tttccccatt ggcacacgcc aaatttgggt ccttacagct cgcgacaaaag gagatgcac 180
tattttaaga tgcttttttg tttctgttct gttctgttgg ttctttcttg tgttgttttt 240
ggttgttttc ccccttcgg agcagcaggt agtctcgag 279

```

<210> 377

<211> 375

<212> DNA

<213> Gallus sp.

<400> 377

```

gaattcgcca aagaggccta aactctcatg gcttcacagc tgcagacaag ttgccgtgca 60
tcttggtgga ctatcggagt ttgcatcctg gcggccgcgc tctttccagg gctgcaagct 120
cagactgtct tagtcaatga cacagtctcg gggtagattg ggacagacgt cgtcctgcac 180
tgcagcttca ccaaccgct ccccaatgtg aagatcacgc aggtcacgtg gcagaagggtc 240
accaacggca ccaagcagaa tgtggccatc tacaaccccg ccatgggggt ctccatcctc 300
ccaccctaca aagaacgggt gactttccgg aacccttctc tcaaagatgg caccattcag 360
ctctctcggc tcgag                                     375

```

<210> 378

<211> 396

<212> DNA

<213> Gallus sp.

<400> 378

```

gaattcggcc aaagaggcct aaaaagctgc agtgactgta agatcatgca aaagctagca 60
gtctatgttt atatttacct gtccatgcag atcgcgggtg atccgggtggc tctggatggc 120
agtagtcagc ccacagagaa cgctgaaaaa gacggactgt gcaatgcttg tacgtggaga 180
cagaatacaa aatcctccag aatagaagcc ataaaaattc aaatcctcag caaactgcgc 240
ctggaacaag cacctaacat tagcagggac gttattaagc agcttttacc caaagctcct 300
ccactgcagg aactgattga tcagtatgat gtccagaggg acgacagtag cgatggctct 360
ttggaagacg atgactatca taccacaaca ctcgag                                     396

```

<210> 379

<211> 293

<212> DNA

<213> Gallus sp.

<400> 379

```

gaattcggcc aaagaggcct acgtcgattg aattctagac ctgcctcgag agaagagtga 60
aaatgatgac aagacttcct gcgctgcata cctgtggat ccttctcttt tcatatctga 120
caatggaagt tatggctaca gaacacatac aggaatttgc atgctttact gactatgccg 180
aaaagctggt ttgtcactgg aaggtgcctg aacagctgaa ctgctccaaa gacttcctgc 240
tctactacag gaaggaactt ttctctccca gaaatgtgtg tggccccctc gag                                     293

```

<210> 380

<211> 297

<212> DNA

<213> Gallus sp.

<400> 380

```

gaattcggcc aaagaggcct agtcattgtc tactactctc tgatgtcggg cgtcatctgg 60
tttgtcatgc tgacctacgc ctggcacacg tccttcaagg cgctgggcac cacctaccag 120
ccgtgtctgg gcaagacctc ctacttccac ctcatcacct ggtccatccc ttctgtactc 180
accgtggcca tcctggctgt ggcacaggtg gatggtgact ccgtcagcgg tatctgcttc 240
gtgggttaca agaactatcg ctaccgtgcc ggctttgtcc tggcaccag actcgag                                     297

```

<210> 381

<211> 272

<212> DNA

<213> Gallus sp.

<400> 381

```

gaattcggcc aaagaggcct atttgggaac aaattgaagc tctaccaact ctgactcagg 60
ctcagaagaa gatgaagaag cttattctgc ttttctcatt gttcttggct ccagcattct 120
cttataaaga aaatcagaaa ataaacaaa acttttcttc aaacaatacc agtcataaac 180

```

gacttaagag agactggata tggaaccgaa tgcataatcag agaagagatt gattcaccat 240
taccacatca cgttggcaag ctcacgctcg ag 272

<210> 382
<211> 641
<212> DNA
<213> Gallus sp.

<400> 382
gaattcggcc aaagaggcct actgtaacat ataaaagctg ttagcagttc ctgtggccag 60
aaagcttcac aaccagcaga gttttgttct ttgggagttt gtaataagag acactccttc 120
acaaaagggtc atatcatcac ataggagagt gttatatata ctgggagAAC aatagactgt 180
attcattgtg gtattatcca aagatctgtt ttctactgcc ctgacttaaa gcagagtacc 240
tctgtggcct atctttcccc ttggcccca agatgacaat aatagctgca atcagttgtg 300
ttttcttatt ttccattctc tgtgaaacaa gtgcattagt gttacccaac tccactgacc 360
tactcctgtc aaacaataat ttactgaca ttgagacggc ttggcagct catctggact 420
cagcaaaaaa tcccaaagcc aggcggaagc gctacatttc acagaatgac atgattgcca 480
ttcttgatta tcataatcaa gtcagaggca aagtcttccc acctgcttcc aacatggaat 540
atatgggttg ggatgaaact cttgccaaat ctgcagaggc ttgggctgct acatgcattt 600
gggaccatgg accttctac ttactgagat tcttgggcgc g 641

<210> 383
<211> 706
<212> DNA
<213> Homo sapiens

<400> 383
ctcgagttgt tccgtgcatt ctgtaagaag ctgataaca caggcagtaa ggatctgaca 60
ggcaaaagggt atagcattgg gaatgatcat taagagcttg tcattctaaa aatctgaaaa 120
aaaaaataat tgaatttgag aaaatagaaa gctgaattac taatgatgct gatctttgat 180
tacagactat ttgggatatt agattgtcct acctaatctc acaacagtag tccaatccag 240
ctgtaaatct cctatctcca caaatttaac atggcagctg acatatatta atatatctta 300
gcatcagagt atcttctaa gaaattgtcaa cttaaaaatc cactttcaaa tttgttgctt 360
tatgttatac aactgttgta atacttcata ctgataaacc gctttaaaat aagtaagtag 420
ttaacccttc aaccaagaac tgacagggtat tattacctcc attttgcaaga tggaaaaaca 480
ggatgaaaga ttaaaatttt tgtccaagac cataaaagcc agctgtggat ccttgggtga 540
atcttggagt tgctaacttc tgtattttgc ttagtttatt gtagtaacaat accttaattt 600
aaaaaaaata ttttcagcca aagagggtgag ggaatagata tgtgcgcttg caagggaagtc 660
tgacagggtaa ctccatcatca catcataggc ctctttggcc gaattc 706

<210> 384
<211> 481
<212> DNA
<213> Homo sapiens

<400> 384
gttgacgggc tggaggaggga agaagagggtg gatccccgga tccaggggaga actggagaag 60
ttaaatcagt ccacggatga tatcaacaga cgggagactg aacttgagga tgctcgtcag 120
aagtcccgct ctgttctggt tgaagcaacg gtgaaactgg atgaactggt gaagaaaatt 180
ggcaaaagctg tggaaagactc caacccttac tgggatgcac ggagggtggc gaggcaggct 240
cagctggaag ctcagaaagc cacgcaggac ctccagaggg ccacagaggt gctccgcgcc 300
gccaaggaga ccattctcct ggccgagcag cggctgctgg aggatgacaa gcggcagttc 360
gactccgcct ggcaggagat gctgaatctc gccactcaga gggctcatgga ggccgagcag 420
accaagacca ggagcgagct ggtgcataag gaggtcgacg gcctctttgg ccctcgagac 480
a 481

<210> 385
<211> 589
<212> DNA
<213> Homo sapiens

<400> 385

```

gaattcggcc ttcattggcct aaggtagagt ctttcaatac attttgggtat aatggctatg 60
catggagtgt cagttccctg gatggttttt aacatgctta tattacaagc agaaattgta 120
gtgtttgcac tgtcaacaga cattaggaca gaggatttat caacagaact cacaaggga 180
tggtctttaa ttgctccga tatagcagt ctgcaaacag atacaggagc agaattttta 240
ttaaaaagca tgggcacact gctattttca gaagaggtag atgaaacaat tttctcagat 300
aaatgtgaca cagggtatgtt ttcattcagaa ctatgcacag ataagtcagt ggcagtttct 360
ggaagtttac ttgggttaag agactgctgt agtacagtgg tggctctccg gaggtgggca 420
gacttggtgc taggagatct acagtcttga ttgacaataa tgacaccagt cgaaccttcc 480
atttttgttt caggggtaga agagacttct aagtttggag gcccttctct tgagctgagc 540
ggaggaggca accgggtctc ttttagaggtc tgggaagagat gggctcgag 589

```

<210> 386

<211> 305

<212> DNA

<213> Homo sapiens

<400> 386

```

gaattcggcc aaagaggcct atcagacttc aaccacagtt gtgattgttt ttagtttgtt 60
agctgcctgg agtgttatct taagaaagca gaagcaccat catttgcaca ctcttatag 120
atcacacacc ttaaccttga ctttttttgc tccagttttt cagaagaagt gaagtcaaga 180
tgaagaacca tttgcttttc tggggagtcc tggcggtttt tattaaggct gttcatgtga 240
aagcccaaga agatgaaagg attgtctctg ttgacaacaa atgtaagtgt gcccggttc 300
tcgag 305

```

<210> 387

<211> 197

<212> DNA

<213> Homo sapiens

<400> 387

```

gaattcggcc ttcattggcct actgcctcag atttcgtgca gttggttgtc gtttgctgga 60
ggattccatt cctgcttgtc cagatgtgtc gacacaaaat tatccgcttt ctggctcagg 120
ttttggttaag ctggcttggg gtccacgtca gccttgcaagt cccggcggaa gctgtcaaaa 180
aggccctgct tctcgag 197

```

<210> 388

<211> 346

<212> DNA

<213> Homo sapiens

<400> 388

```

gaattcggcc ttcattggcct caagtgaata tagtcagtcc ccaaagatgg agagcttgag 60
ttctcacaga attgatgaag atggagaaaa cacacagatt gaggatacgg aacctatgtc 120
tccagttctc aattctaaat ttgttcctgc tgaaaatgat agtatcctga tgaatccagc 180
acaggatggg gaagtacaac tgagtcagaa tgatgacaaa acaaaggag atgatacaga 240
caccagggat gacattagta ttttagccac tgggtgcaag ggcagagaag aaacggtagc 300
agaagatggt tgtattgatc tcacttgtga ttcgtggagt ctcgag 346

```

<210> 389

<211> 502

<212> DNA

<213> Mus musculus

<400> 389

```

gaattcggcc aaagaggcct agttccggat atctgtggtg acattttcta tctgcttcag 60
cagcatgtgg cagctactac taccaacagc tctggtactt acagctttct ctggcattca 120
agctggtctc caaaaggctg tgggtgaacct agacccaag tgggtcaggg tgcttgagga 180
agacagcgtg accctcagat gccaaaggcac tttctcccc gaggacaatt ctatcaagt 240
gttcataaac gaaagcctca tcccacacca ggatgccaac tatgtcatcc aaagtgccag 300

```

```

agttaaggac agtggaaatgt acaggtgccca gacagccctc tccacgatca gtgacccagt 360
gcaactagag gtccatatgg gctggctatt gcttcagacc actaagtggc tgttccagga 420
gggggacccc attcatctga gatgccacag ttggcaaaac agacctgtac ggaagggtcac 480
ctatttacag caacggctcg ag                                     502

```

<210> 390

<211> 455

<212> DNA

<213> Mus musculus

<400> 390

```

gaattcggcc aaagaggcct aaagaaagtg aaaaaaatct tttgatgagc acattgtaca 60
aacttcatga tcgattggcc cagattgcag gagaccatga atgtggcagt tctagtcaaa 120
ggatgctttc tgtccaagaa gcagctgcat atttaaaaaa tttaggctct gagtatgaag 180
atgtatttaa tacttcattg ctgtggattt ttaaaaatgg gaaagatgtt ggaataaggt 240
gtgttggtta cgggcctgag gaagacttga caaacataac tgatgtgcag tttttacagt 300
ccaccaggcc ccagatgccc ttctgggtgcc gtttcggcg tgctttcatt actgtgacct 360
ataggttatt gttgttatgt ttaggtgtag tgctgggtg cggtgtcttc cgttacctga 420
gataccgctg gactaaggag gaaacgggac tcgag                                     455

```

<210> 391

<211> 600

<212> DNA

<213> Mus musculus

<400> 391

```

gaattcggca aagaggccta cacgatgccc ctatcagatg tgttgaatac tgtccagaag 60
tgaacgtgat ggtaactgga agttgggata agacagttaa gctgtgggac cccagaactc 120
cgtgtaatgc tgggactttc tcccagccgg aaaagggtcta caccctgtca gtgtctgggg 180
acaggctgat tgtgggcacg gcgggcccgc gagtgctggt gtgggacttg cggaaatagg 240
gctatgtgca gcagcggagg gagtccagcc tgaagtacca gactcgctgc atccgagcct 300
tcccgaacaa gcagggttat gtgttgagct ccacgaagg ccgagtggtc gtggaatact 360
tggaacccgag ccttgagggtg cagaagaaga agtacgcctt caagtggcac aggctaaagg 420
agaacaacat tgagcagatt taccagtcac acgccatctc ctttcacaac atccacaaca 480
cgtttgccac aggtgggttc gatggattcg tcaatatatt ggacccattt aacaagaagc 540
gcctgtgcca gttccatcgg taccacacca gcacgccttc ccttgccctc agtaatgacg 600

```

<210> 392

<211> 976

<212> DNA

<213> Mus musculus

<400> 392

```

gaattcggcg ccgcgtcgac gcctcccaag tgctgggatt aaataaacct ttttaaaaag 60
aggcacttta gaacacttgg aagaaccttt cagtgtgttt actgaaatcc aaagcgtagc 120
ctataagtag agcagatagg acatagggtt tacacagtgt attgaggtat taaattttact 180
ttgcagtggg tattttttaa tatatacttg agctgacgtg tttttaactg agtttttttg 240
tttttttttt ttaattgctac tcatttggat tgctctttta ataaactctt cttgtatagg 300
aatgaaatca ccaggagaac agctgggtgt cctgccacca gtggaggcct ttcctaata 360
tcccggggtc atcaatagag aaagaagctg tgattaccag tttccatcct ctccgtctac 420
agacactcta aaaggcacta ccgaggagga cactgttaac gcaggtcagg cgatggcagt 480
ggaagagcag tgtgtgccag cagcagagct tcctagagtg agcgagatta cagaaaatac 540
agtgttagga gagttccatc ttttctctag gaaggtagaa gagattttga aggagaagaa 600
tgtttcatat gtttagtgcaa tttccacacc tatcttttca gcacaagaga agatgaatcg 660
cctttctgag ttcatacatc ctaatacttc taaagctggt gttgaggaat ttgtatagg 720
tttgcatgaa aaactaaata ctgttggtat tacagcatca gctaagggtg tgagtttgcc 780
gccagcagtt agcgttaate attcccatgc tgacgacgca ttggcttctc tgggaaggcg 840
tgttgtgtca atttctcaa gtgacttcag tgctaaagaa ctttttgagc cgctctgttc 900
tgaacattta aaagataaca actctaatag acagtattcc tcttcagtgg aagtagaaat 960
gaatcggttc cctata                                     976

```

<210> 393
 <211> 436
 <212> DNA
 <213> Mus musculus

<400> 393
 gaattcggcc aaagaggcct agttctcat cactgttccct gtgtcacag tcatcaatta 60
 tagacccac aacatgcgcc ctgaagacag aatgttccat atcagagctg tgatcttgag 120
 agccctctcc ttggctttcc tgcctgagct cggaggagct ggggccatca aggcggacca 180
 tgtgtcaact tatgccgctg ttgtacagac gcatagacca acaggggagt ttatgtttga 240
 atttgatgaa gatgagatgt tctatgtgga tctggacaag aaggagaccg tctggcatct 300
 ggaggagttt ggccaagcct tttcctttga ggctcagggc gggctggcta acattgctat 360
 attgaacaac aacttgaata ccttgatcca gcgttccaac cacactcagg ccaccaacga 420
 tcccccatca ctcgag 436

<210> 394
 <211> 159
 <212> DNA
 <213> Mus musculus

<400> 394
 gaattcggcg cgcgctcgac ggccaacca cctctaatag gtctattttt atacatgctt 60
 ttccatatta catttccaaa ttactaaaag tattttaact taatttttac actccagtca 120
 cagatggaat taagaaacac cattccttcc caactcgag 159

<210> 395
 <211> 532
 <212> DNA
 <213> Mus musculus

<400> 395
 gaattcggcg cgcgctcgac ttgagcttgt gaggttagcc acagtttaca gagggttgaa 60
 agtctaggta ggcttactta actgtcagcc ctctcacctt ttctgaagga cattttcttg 120
 agccttcttt gaatactcat caatgtctga agaaattgtt tatgcaaatc tcaaaatcca 180
 ggaccctgat aaaaaagaag aaaccagaa gtctgacaaa tgtgggggaa aagtatccgc 240
 cgatgcttcc cattcacagc aaaaaacagt cttgattctg attcttctat gccttctgct 300
 gttcattgga atgggggtct taggagggcat cttttataca actttggcaa cagaaatgat 360
 aaaatcgaat caattgcaaa gggccaagga agaacttcag gaaaatgttt ccctacagct 420
 gaagcacaat ctcaacagct ccaagaaaat caagaacctt tctgccatgc tgcaaagcac 480
 agccaccag ctgtgccgag agctgtatag caaagaacca gagcacccta ta 532

<210> 396
 <211> 725
 <212> DNA
 <213> Mus musculus

<400> 396
 gaattcggcg cgcgctcgac cctctccaaa gtccctgaac atagactcta accatggaat 60
 ggacctgggt ctttctcttc ctccctgcag taactgcagg tgtccactcc cagggtcagc 120
 tgcagcagtc tggagctgag ctgatgaagc ctggggcctc agtgaagctt tcctgcaagg 180
 ctactggcta cacattcact ggctactgga tagagtgggt aaagcagagg cctggacatg 240
 gccttgagtg gattggagag attttacctg gaagtggtag tactaactac aatgagaagt 300
 tcaagggcaa ggccacattc actgcagata catectccaa cacagcctac atgcaactca 360
 gcagcctgac aactgaggac tctgccatct attactgtgc agccttatcc ttgactact 420
 ggggccaagg caccactctc acagtctcct cagccaaaac aacagcccca tcggtctatc 480
 cactggcccc tgtgtgtgga ggtacaactg gctcctcggg gactctagga tgcctggcca 540
 aggggtatct ccttagacca gtgacctga cctggaactc tggatccctg tccagtgggt 600
 tgcacacctt cccagctctc ctgcagtctg gcctctacac cctcagcagc tcagtgactg 660
 taacctcgaa cacctggccc agccagacca tcacctgcaa tgtggcccac ccggtctctc 720
 ctata 725

<210> 397
 <211> 276
 <212> DNA
 <213> Mus musculus

<400> 397
 gaattcgcgg cgcgctcgac cctaaaccgt cgattgaatt ctattttatt tttactctc 60
 ttctctcag acacagtggc actgcttata tccaaatggt gtgatcgtct cctcagttag 120
 cggcggctcc cactgcgctg tgggtagtgt gtgactgtgg ctgtactgta tagtgaacat 180
 agttggcata tctttgtttg aagtttgttg gtgattccac caaactgggtg taaaaaaca 240
 aaacaaaaaa acccaaaaac caccacaaaaa ctcgag 276

<210> 398
 <211> 404
 <212> DNA
 <213> Mus musculus

<400> 398
 gaattcggcc aaagaggcct atgcttagcc aaaacgctga tctgacctc cccagctcct 60
 tcatcttaca gaagaagaaa atgaggctta gtggatgtct tctcactatt agtgcaactg 120
 gagcttttat ttatttcttt gagatagtat ctgcctatct agaccaggct gaccacagaa 180
 tagaaggcac tcttccagcc ttagcctccg tgcttgagg agctgccata cccagcacct 240
 taatttatgt catttattct agggaaaccc aaaactttct tgacagagta gaggagccag 300
 atgaactaag gcagcaaaat acatggaact tgatttctct gtatgttggg aggactccaa 360
 gcagttagct cttcatggct agaccccagc cccaaaacct cgag 404

<210> 399
 <211> 592
 <212> DNA
 <213> Mus musculus

<400> 399
 gaattcggcc aaagaggcct acatgaatct acttctgac cttacctttg ttgcagctgc 60
 tgttgctgcc ccctttgatg atgatgacaa gatcgttggg ggctacatct gtgaggagaa 120
 ttctgtcccc taccaggtgt ccttgaattc tggctaccac ttctgcggtg gctccctcat 180
 cagcgaacag tgggtggtgt cagcaggtca ctgctacaag tcccgcaccc aggtgagact 240
 gggagagcac aacatcgaag tcttgagggg gaatgaacag ttcataatg cagccaagat 300
 catccgccac cccaaataca acagccggac tctggacaat gacatcctgc tgatcaagct 360
 ctccctcact gccgtcatca attcccgcgt gtccgccatc tctctgccc ctgccctcc 420
 agctgctggc accgagtcct tcatctccgc tggggcaaca ctctgagttc tgggtgccgac 480
 taccagagc agctgcagtg cctggatgct cctgtgctga gccaggtgta gtgtgaagcc 540
 tctaccctcg gaaagattac caacaacatg ttctgtgtgg gctttcctcg ag 592

<210> 400
 <211> 435
 <212> DNA
 <213> Mus musculus

<220>
 <221> unsure
 <222> (332)

<400> 400
 gaattcggcc aaagaggcct agacggaact gccacgatgc tgccactttg gactctttca 60
 ctgctgctgg gagcagtagc aggaaaagaa gtttgctacg aaagactcgg ctgcttcagt 120
 gatgactccc catggctcagg aattacggaa agacccctcc atatattgcc ttgggtctcca 180
 aaagatgtca acaccgcctt cctcctatat actaatgaga acccaaaaca ctttcaagaa 240
 gttgcccgag attcatcaag catcagtggt tccaatttca aaacaaatag aaaaactcgc 300
 tttattattc atggattcat agacaaggga gnagaaaact ggctggccaa tgtgtgcaag 360
 aatctgttca aggtggaaaag tgtgaactgt atctgtgtgg actggaaaag tggctcccga 420

actggatata tcgag

435

<210> 401

<211> 581

<212> DNA

<213> Mus musculus

<400> 401

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gaattcgcgg ccgcgtcgac gttagtccac tcatgaacat ggccctgaaa taggagctac 60
atgttgcaag aaccatctta tgacaaggga attcagtgcc ctcaacaatt aacactatgt 120
cagtaaataa ctgttggtca taaaacagtt tcaactgttc caataaggac acagcatatt 180
cggatttgat ctgcctttcc tcttgagtgg acatgattgt attccattaa tatctccaag 240
aacagattag aaaagtccgt cttgatggaa ggtcaaatga atacttcaaa agcaaaggag 300
ggagttcact tgctgttata tgcagcattc agaacagaac ccacacagcc gctctgaata 360
tcttgttaca ggctcacaat ctttgctagg tcatcctgag ctacagtttt tcaacagatt 420
ctccaaacat cctgctcaaa tttgcacctg ggaagctcat gaatagggaa aatacaggag 480
gtagattttg ttgcaacatc ttatgttcag taggtcttct gcagaactcg tccccggtcg 540
cccagctcac cgcgcgcgtc cgccgggcgg ttctccctat a 581

```

<210> 402

<211> 751

<212> DNA

<213> Mus musculus

<220>

<221> unsure

<222> (402)

<220>

<221> unsure

<222> (416)

<220>

<221> unsure

<222> (537)

<400> 402

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gaattttaat taagaattcg cgcgcgcgtc gacgaatctg tttgctagtt ggagaaaaag 60
atagggcttg tatatcacat ttcattttca agagtgtaat ctttaagttat ttcacatgca 120
tgtttttagca ctggctagtc aacaatagat agcattcggc tgaatgagga cttttaaaagt 180
aaaagctttt gaaagtttta aatttgtaag tgtacttgaa tacaatttat cagtacatca 240
gatgtttttc caagttggta agttaccag cctctggagg aaggctcctg agacaaggaa 300
taaatcgtct tttcctttat aatggaacgt gagacctacc ctgcagggtt gtttagtaag 360
ctagccaaag tattggggat tgcagtttcc gtttgttggt tnattgtcca aacatngttc 420
tgtgaaagaa atgtaaaaaa atctttccct gaaactgagt atgatagctc atacccttaa 480
tcctagcact ctgggaaggc aggagtgggt cgataaacct ctccctttaa gaaaagnaca 540
gctacagaag tctcagaaga ggccagagca gtgtctatac ctatcacctc tcaactcagag 600
cttgccgaag cacaattttc ataattccct ctaattctta tcgttcacag gggagtctct 660
tgtctggctt catctttata gcatcccagg aaagggaaca ttaaacataa atgtgtgtga 720
agtgatagtt tggttctccc agcgcgcgca g 751

```

<210> 403

<211> 114

<212> DNA

<213> Mus musculus

<400> 403

```

gaattcgcgg ccgcgtcgac attgaattct atacctgcct ctagcacaca tggttaagac 60
tctagcctgc ttaccattt acaattttgt aagtcaacag ctccctatag tgag 114

```

<210> 404
 <211> 570
 <212> DNA
 <213> Mus musculus

<400> 404
 gaattcgcgg cgcgctcgac gggtcaggta tggaatcaac acaaacaaga tggagaacaa 60
 gataaggcct gacttctggc cgtgccagct ctggggccact gttggcacat agccgactgt 120
 gtccatagga agctgaaaag cgtgtctcct tgcaatggac aggcaacacc tggttttcta 180
 cactgaaccc ctaccaagaa gctcaaggctc aagctgtggc ggggtggcctc ggctgtgccc 240
 catccccgcc cacaccctg cccctgccc agctctctgt gacagtcatt ccagtaaagg 300
 ctcatacctt tttctgagtg cccaggctaa gaatgcatac cagtctgcca aaccttcata 360
 ccaaatagtg agaaatcgct tttccacaag agactttagg gtcctaagag ttacagaaag 420
 cctgactcag gcagaggaag cagcctactc cactgtctta ggaaaaaatt gcaaccctc 480
 ccaacagccc ctgctcaaag cttttatcgc caaagcacia gtaagttctc agacacagcc 540
 tgcgtcgacg cggccgcgaa tctccctata 570

<210> 405
 <211> 182
 <212> DNA
 <213> Mus musculus

<400> 405
 gaattcgcgg cgcgctcgac atcatggcta cctgcgtgt cccactcctg gtggctctcg 60
 tccttcttgc tgtggcaatt cagacctctg atgcaggctc ctatgggtgc aatgtggaag 120
 acagtattct ctgccaggac tacatccgtc accctctgcc atcacgttta gtgagtcgta 180
 tt 182

<210> 406
 <211> 545
 <212> DNA
 <213> Mus musculus

<220>
 <221> unsure
 <222> (184)

<400> 406
 gaattcgcgg cgcgctcgac cgggaacccc aaccgctgca actctccgcy tccgaaatcc 60
 agcatcccg cgtctgcgct cgcaccatgc agctaaagt tccctgtttt gtgtccttgg 120
 gaaccaggca gcctgttttg aagaagctcc atgtttctag cgggttcttt tctggtcttg 180
 gtctgttctt gctgtgttg agcagcctct gtgtgcctc tgcagagact gaagtccgtg 240
 caatgggtgg cagcaatgtg gtgtcagct gcattgacct ccacagagc catttcaact 300
 tgagtgggtc gtatgtctat tggcaaatcg aaaaccaga agtttcggtg acttactacc 360
 tgccttacia gtctccagg atcaatgtgg acagtctcta caagaacagg ggccatctgt 420
 cctgggactc catgaagcag ggtaacttct ctctgtacct gaagaatgtc accctcagg 480
 ataccagga gttcacatgc cgggtattta tgaatacagt cacagagtta gtcgagatcc 540
 tcgag 545

<210> 407
 <211> 331
 <212> DNA
 <213> Gallus sp.

<400> 407
 gaattcggcc aaagaggcct agtgttatat atactgggag aacaatagac tgtattcatt 60
 gtgggtattat ccaaagatct gttttctact gccctgactt aaagcagagt acctctgtgg 120
 cctatctttc ccttttgcc ccaagatgac aataatagct gcaatcagtt gtgttttctt 180
 attttccatt ctctgtgaaa caagtgcatt agtgttacct aactccactg acctactcct 240
 gtcaacaat aatttcactg acattgagac ggctttggca gtcattctgg actcagcaaa 300

aattcccaaa gccaggcgga gtgcgctcga g

331

<210> 408
 <211> 282
 <212> DNA
 <213> Gallus sp.

<220>
 <221> unsure
 <222> (141)

<220>
 <221> unsure
 <222> (143)

<220>
 <221> unsure
 <222> (145)

<400> 408
 gaattcggcc aaagaggcct ataggcctct ttggccggcc aaagaggcgt actcagtgtgta 60
 tatatgtaac tgtcattgat aagagttaca taggcataca gagggagAAC atctgtatgt 120
 tgcatagatag tttgttttaga ngnanaacta ggattgagtt actcaaatta gtgtttgtga 180
 attatagaac taagctttac cttcaaatga aaatttcaaa ttactttttg gtttgtgcat 240
 atttttttaa tttgtagttc tgtattagtc gtagcgctcg ag 282

<210> 409
 <211> 311
 <212> DNA
 <213> Gallus sp.

<400> 409
 gaattcggcc aaagaggccta agaagaatgt ggacgaatcc aaaccttcgc tgccttttag 60
 ctctagcttt tttatgttta acaagcttag tgcatagtcg agagataggt tctcaagggg 120
 acccccagaa tttaaaatgt gtcacgcaca atttacataa aatgggtctgt acttgggaga 180
 tctcatctga aagaagacat ggacaaactg agttttgtta cgctacagag tggttttaaaa 240
 ctaaggagga gagagtcgag attccagtcc cagagagctc caccactgtg aaaataacca 300
 catcactcga g 311

<210> 410
 <211> 382
 <212> DNA
 <213> Gallus sp.

<400> 410
 gaattcggcc aaagaggcct agtgcattta aatccaggcc atttgagtt gctgacttca 60
 cgcattacag aaagtgaatc caaacaccag gttggaacat ctttgatccc tggagaagtt 120
 cagcctttgt cttcattggg tgtagacct tgtgtatata aatgataggt gcaaccgaag 180
 gaggatgttc actctcatct tttttcttgt agcaatgcgt ctgtgcacgg aggaatgcag 240
 gggtctaggg cactctgacc agtgctggat gccaccgttg ccatctccct catccgatta 300
 caggagtaac atgttcatcc ctggggagga gtttcagtca caacagcagc agctgcagca 360
 acagcagcag cagggcctcg ag 382

<210> 411
 <211> 521
 <212> DNA
 <213> Gallus sp.

<400> 411
 gaattcggcc aaagaggcct atcaaaatga agatactgaa atggactttg ggtatgctgt 60

```

tggtcctact gttgtctatc gggcgctgta cagaaccatc gaccctcaac aaaacatccc 120
aacggagaca tcctcgttcc acagatggtg gagaggaagg gaggaatgt ggttacacct 180
tccttggtccc agaacaaaaa atcacagggc caatctgtgt gaataacgaa ccagggtactg 240
gtaacagaaa agatgaagtc acaagaatgg acatagagaa cttgaaggat gtgctgtcca 300
agcaaaaaacg tgagattgac atcttgagc tgggtggtaga cgtggatgga aacattgtga 360
atgaagtaaa gttgctgagg aaagaaagcc gtaacatgaa ctctcgggtc actcaactct 420
atatgcaact cttgcatgag ataatccgaa agcgcgataa ctacttgaa ctttcccaac 480
tgaaaaataa agtccctaat gtaacaacag aaagtctcga g 521

```

<210> 412
 <211> 301
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (215)

```

<400> 412
gtttgggggg ttattttatt tgctgtcct tatccctgct tggacacctg agcatctgat 60
tcctgtcccc ctggtgccat ctggcctggc tggagccagg aacaggaggg acacttcccc 120
agaatccgca tgtttcccca gtgattacac tccactgccca ccgtgggtgcc tggctttaac 180
tcccacccct gctatgactc ctctctgcag agacncgact ggcggctcca gcagggacta 240
cctttcttat aaaccagggg ggaccacaca cacacacaca cacacacaca cattactcga 300
g 301

```

<210> 413
 <211> 413
 <212> DNA
 <213> Homo sapiens

```

<400> 413
gaattcggcc aaagagcatc tgaagatcag ctattagaag agaaagatca gttaagtcct 60
ttggacctga tcagcttgat acaagaacta ctgatttcaa cttctttggc ttaattctct 120
cggaacacgat gaaatataca agttatatct tggcttttca gctctgcacg gttttgggtt 180
ctcttggtctg ttactgccag gaccatcatg taaaagaagc agaaaacctt aagaaatatt 240
ttaatgcagg tcattcagat gtagcggata atggaactct tttcttaggc attttgaaga 300
attggaaaaga ggagagtgc agaaaaataa tgcagagcca aattctctcc ttttacttca 360
aactttttta aaacttttaa gatgaccaga gcatccaaaa gagtgtggtc gag 413

```

<210> 414
 <211> 496
 <212> DNA
 <213> Homo sapiens

```

<400> 414
gaattcggcc aaagaggcct agcttcagga tcctgaaagg ttttgcctta cttcctgaag 60
acctgaacac cgctcccata aagccatggc ttgccttgga tttcagcggc acaaggctca 120
gctgaacctg gctaccagga cctggccctg cactctcctg tttttcttct tcttcacccc 180
tgtcttctgc aaagcaatgc acgtggccca gcctgctgtg gtactggcca gcagccgagg 240
catcgccagc tttgtgtgtg agtatgcac tccaggcaaa gccactgagg tccgggtgac 300
agtgtctcgg caggctgaca gccagggtgac tgaagtctgt gcggcaacct acatgatggg 360
gaatgagttg accttcctag atgattccat ctgcacgggc acctccagt gaaatcaagt 420
gaacctcact atccaaggac tgagggccat ggacacggga ctctacatct gcaagggtgga 480
gctcatgtac ccccg 496

```

<210> 415
 <211> 290
 <212> DNA
 <213> Homo sapiens

<400> 415

```

gaattcggcc aaagaggcct agaacaaccc agaaaccttc acctctcatg ctgaagctca 60
cacccttgcc ctccaagatg aagggtttctg cagcgcttct gtgcctgctg ctcatggcag 120
ccactttcag ccttcaggga cttgctcagc cagattcagt ttccattcca atcacctgct 180
gcttttaacgt gatcaatagg aaaattccta tccagaggct ggagagctac acaagaatca 240
ccaacatcca atgtcccaag gaagctgtga tcttcaagac catggctcgag 290

```

<210> 416

<211> 529

<212> DNA

<213> Homo sapiens

<400> 416

```

gaattcggcc aaagaggcct actgaagatc agctattaga agagaaagat cagttaagtc 60
ctttggacct gatcagcttg atacaagaac tactgatttc aacttctttg gcttaattct 120
ctcggaaacg atgaaatata caagttatat cttggctttt cagctctgca tcgttttggg 180
ttctcttgcc tggttactgcc aggaccata tgtaaaagaa gcagaaaacc ttaagaaata 240
ttttaatgca ggtcattcag atgtagcgga taatggaact cttttcttag gcattttgaa 300
gaattggaaa gaggagagtg acagaaaaat aatgcagagc caaattgtct ccttttactt 360
caaacttttt aaaaacttta aagatgacca gagcatccaa aagagtgtgg agaccatcaa 420
ggaagacatg aatgtcaagt ttttcaatag caacaaaaag aaacgagatg acttcgaaaa 480
gctgactaat tattcggtaa ctgacttgaa tgtccaacgc aaagtcgag 529

```

<210> 417

<211> 385

<212> DNA

<213> Homo sapiens

<400> 417

```

gaattcggcc aaagaggcct aggcaaacgc agaacgtttc agagccatga ggatgcttct 60
gcatttgagt ttgctagctc ttggagctgc ctacgtgtat gccatccca cagaaattcc 120
cacaagtgca ttggtgaaag agaccttggc actgctttct actcatcgaa ctctgctgat 180
agccaatgag actctgagga ttctgttcc tgtacataaa aatcaccaac tgtgcactga 240
agaaatcttt cagggaaatg gcacactgga gagtcaaact gtgcaagggg gtactgtgga 300
aagactattc aaaaacttgt ccttaataaa gaaatacatt gacggccaaa aaaaaaagt 360
tgagagaagaa agacggagag tcgag 385

```

<210> 418

<211> 415

<212> DNA

<213> Homo sapiens

<400> 418

```

gaattcggcc aaagaggcct actgaagatc agctattaga agagaaagat cagttaagtc 60
ctttggacct gatcagcttg atacaagaac tactgatttc aacttctttg gcttaattct 120
ctcggaaacg atgaaatata caagttatat cttggctttt cagctctgca tcgttttggg 180
ttctcttgcc tggttactgcc aggaccata tgtaaaagaa gcagaaaacc ttaagaaata 240
ttttaatgca ggtcattcag atgtagcgga taatggaact cttttcttag gcattttgaa 300
gaattggaaa gaggagagtg acagaaaaat aatgcagagc caaattgtct ccttttactt 360
caaacttttt aaaaacttta aagatgacca gagcatccaa aagagtgtgg tcgag 415

```

<210> 419

<211> 439

<212> DNA

<213> Homo sapiens

<400> 419

```

gaattcggcc aaagaggcct actgaagatc agctattaga agagaaagat cagttaagtc 60
ctttggacct gatcagcttg atacaagaac tactgatttc aacttctttg gcttaattct 120
ctcggaaacg atgaaatata caagttatat cttggctttt cagctctgca tcgttttggg 180

```

```

ttctcttggc tgttactgcc aggaccata tgtaaaagaa gcagaaaacc ttaagaaata 240
ttttaatgca ggtcattcag atgtagcgga taatggaact cttttcttag gcattttgaa 300
gaattggaaa gaggagagt acagaaaaat aatgcagagc caaattgtct ccttttactt 360
caaacttttt aaaaacttta aagatgacca gagcatccaa aagagtgtgg agaccatcaa 420
ggaagacatg aatgtcgag                                439

```

<210> 420

<211> 415

<212> DNA

<213> Homo sapiens

<400> 420

```

gaattcggcc aaagaggcct actgaagatc agctattaga agagaaagat cagttaagtc 60
ctttggacct gatcagcttg atacaagaac tactgatttc aacttctttg gcttaattct 120
ctcggaaacg atgaaatata caagttatat cttggccttt cagctctgca tcgttttggg 180
ttctcttggc tgttactgcc aggaccata tgtaaaagaa gcagaaaacc ttaagaaata 240
ttttaatgca ggtcattcag atgtagcgga taatggaact cttttcttag gcattttgaa 300
gaattggaaa gaggagagt acagaaaaat aatgcagagc caaattgtct ccttttactt 360
caaacttttt aaaaacttta aagatgacca gagcatccaa aagagtgtgg tcgag          415

```

<210> 421

<211> 529

<212> DNA

<213> Homo sapiens

<400> 421

```

gaattcggcc aaagaggcct actgaagatc agctattaga agagaaagat cagttaagtc 60
ctttggacct gatcagcttg atacaagaac tactgatttc aacttctttg gcttaattct 120
ctcggaaacg atgaaatata caagttatat cttggccttt cagctctgca tcgttttggg 180
ttctcttggc tgttactgcc aggaccata tgtaaaagaa gcagaaaacc ttaagaaata 240
ttttaatgca ggtcattcag atgtagcgga taatggaact cttttcttag gcattttgaa 300
gaattggaaa gaggagagt acagaaaaat aatgcagagc caaattgtct ccttttactt 360
caaacttttt aaaaacttta aagatgacca gagcatccaa aagagtgtgg agaccatcaa 420
cgaagacatg aatgtcaagt ttttcaatag caacaaaaag aaacgagatg acttcgaaaa 480
gctgactaat tattcggtaa ctgacttgaa tgtccaacgc aaagtcgag          529

```

<210> 422

<211> 386

<212> DNA

<213> Homo sapiens

<400> 422

```

gaattcggcc aaagaggcct aaagacatta caccatctga attgcctgca aaccaggtt 60
gtgtgcattc aaaagagcat tctattaaag ctaccttaat ttggcgctta tttttcttaa 120
tcattgtttc gacaatcata gtgtgtggaa tgggtgctgc ttttaagtga ataagagcta 180
actgccatca agagccatca gtatgtcttc aagctgcatg cccagaaaagc tggattgggt 240
ttcaaagaaa gtgtttctat ttttctgatg acaccaagaa ctggacatca agtcagaggt 300
tttgtgactc acaagatgct gatcttgctc aggttgaaag cttccaggaa ctgaatttcc 360
tgttgagata taaaggcccc gtcgag                                386

```

<210> 423

<211> 443

<212> DNA

<213> Homo sapiens

<400> 423

```

gaattcggcc aaagagtctg gatggcatct acttcgtatg actattgcag agtgcccatg 60
gaagacgggg ataagcgctg taagcttctg ctggggatag gaattctggt gctcctgatc 120
atcgtgattc tgggggtgcc cttgattatc ttcacatca aggccaaacag cgaggcctgc 180
cgggacggcc ttcgggcagt gatggagtgt cgcaatgtca cccatctcct gcaacaagag 240

```

```

ctgaccgagg cccagaaggg ctttcaggat gtggaggccc agccgccacc tgcaaccaca 300
ctgtgatggc cctaattggct tccctggatg cagagaaggc ccaaggacaa aagaaagtgg 360
aggagcttga gggagagatc actacattaa accataagct tcaggacgcg tctgcagagg 420
tggagcgact gagaagagtc gag                                     443

```

```

<210> 424
<211> 455
<212> DNA
<213> Homo sapiens

```

```

<400> 424
gaattcggcc aaagaggcct atctgaagat cagctattag aagagaaaga tcagttaagt 60
ccttttgacc tgatcagctt gatacaagaa ctactgattt caacttcttt ggcttaattc 120
tctcggaaac gatgaaatat acaagttata tcttggcttt tcagctctgc atcgtttttg 180
gttctcttgg ctgttactgc caggacccat atgtaaaaga agcagaaaac cttaagaaat 240
attttaatgc aggtcattca gatgtagcgg ataattggaac tcttttctta ggcattttga 300
agaattggaa agaggagagt gacagaaaaa taatgcagag ccaaattgtc tccttttact 360
tcaaactttt taaaaacttt aaagatgacc agagcatcca aaagagtgtg gagaccatca 420
aggaagacat gaatgtcaag tttttcaata gcaag                                     455

```

```

<210> 425
<211> 365
<212> DNA
<213> Homo sapiens

```

```

<400> 425
gaattcggcc aaagaggcct aggtggaat tccagcaaga atagagggtga agacaagcca 60
ccaggactca ggaaggaaac gctgaccatt agaaacctct gcataagacg ttgtaaggag 120
gaaaataaaa gagagaaaaa cacaaagatt taaacaagaa acctacgaac ccagctcttg 180
aaagagccac cttctccaaa atggatatgt ttctctcac ctgggttttc ttagccctct 240
acttttcaag acaccaagtg agaggccaac cagacccacc gtgcggagggt cgtttgaatt 300
ccaaagatgc tggctatatc acctctcccc gttaccccca ggactacccc tcccaccttg 360
tcgag                                     365

```

```

<210> 426
<211> 557
<212> DNA
<213> Homo sapiens

```

```

<400> 426
gaattcggcc aaagaggcct acaattataa aatgtcagct ttaaggaaa actgtggaat 60
atattttcca gaaataaaaa gagatccagg cagatattta catagtgtgc ctgaatctgt 120
gaaaaaatgg cttcgacagc taaagaatgc tgggaaaatt cttctgttaa ttaccagttc 180
tcacagtgat tactgtagac ttctctgcga atatattctt gggaatgatt ttacagacct 240
ttttgacatt gtgattacaa atgcattgaa gcctgggttc ttctccact taccaagtca 300
gagacctttc cggacactcg agaattgatg ggagcaggag gcaactgccat ctctggataa 360
acctggctgg tactcccaag ggaacgctgt ccacctctat gaacttctga agaaaatgac 420
tggcaaacct gaacccaagg ttgtttatgt tggtgacagc atgcattcag atattttccc 480
agctcgtcac tatagtaatt gggagacagt cctcatcctg gaagaactca gaggggatga 540
aggcacgagg agtcgag                                     557

```

```

<210> 427
<211> 468
<212> DNA
<213> Homo sapiens

```

```

<400> 427
gaattcggcc aaagaggcct aacaggatca acacatttca tctgggcttc ttaaattctaa 60
atctttaaaa tgactaagtt ttcttccttt tctctgtttt tcctaatagt tggggcttat 120
atgactcatg tgtgtttcaa tatggaaatt attggaggga aagaagtgtc acctcattcc 180

```

```

aggccattta tggcctccat ccagtatggc ggacatcacg tttgtggagg tgttctgatt 240
gatccacagt gggtgctgac agcagccac tgccaatcgc ggtttaccaa aggccagtct 300
cccactgttg ttttaggcgc acactctctc tcaaagaatg aggccctcaa acaaacactg 360
gagatcaaaa aattttatac attctcaaaa gttacatcag atcctcaatc aaatgatata 420
atgctgggta agcttcaaac agccgcaaaa ctcaataaac atgtcgag 468

```

<210> 428

<211> 333

<212> DNA

<213> Homo sapiens

<400> 428

```

gaattcggcc aaagaggcct acaagcttct aggacaagag ccaggaagaa accaccggaa 60
ggaaccatct cactgtgtgt aaacatgact tccaagctgg ccgtggctct ctgggcagcc 120
ttcttgattt ctgcagctct gtgtgaaggt gcagttttgc caaggagtgc taaagaactt 180
agatgtcagt gcataaagac atactccaaa cttttccacc ccaaatttat caaagaactg 240
agagtgtatg agagtggacc aactgctgcc aacacagaaa ttattgtaaa gctttctgat 300
ggaagagagc tctgtctgga cccaaggtc gag 333

```

<210> 429

<211> 307

<212> DNA

<213> Homo sapiens

<400> 429

```

gaattcggcc aaagaggcct agctgacact cgagcccaca ttccgtcacc tgctcagaat 60
catgcaggtc tccactgctg cccttgctgt cctcctctgc accatggctc tctgcaacca 120
gttctctgca tcacttgctg ctgacacgcc gaccgctgct tgcttcagct acacctcccg 180
gcagattcca cagaatttca tagctgacta ctttgagacg agcagccagt gctccaagcc 240
cgggtgctatc ttctaacca agcgaagccg gcagggtctgt gctgacccca gtgaggtgtg 300
ggtcgag 307

```

<210> 430

<211> 348

<212> DNA

<213> Homo sapiens

<400> 430

```

gaattcggcc aaagaggcct acaaaacgct gattaaaaga agcacggtat gatgaccaa 60
cataaaaagt gttttataat tgttggtgtt ttaataacaa ctaatattat tactctgata 120
gttaaactaa ctgcagattc tcagagttaa tgcccctatg attggattgg ttcccaaac 180
aaatgctatt atttctctaa agaagaagga gattggaatt caagtaaata caactgttcc 240
actcaacatg ccgacctaac tataattgac aacatagaag aaatgaattt tcttaggcgg 300
tataaatgca gttctgatca ctggattgga ctgaagatgg cagtcgag 348

```

<210> 431

<211> 359

<212> DNA

<213> Homo sapiens

<400> 431

```

gaattcggcc aaagaggcct aatttttttt atttagtttt ccttggttga attattggaa 60
gttggtttgc aacctgggct tttatacaga agaatacga tcacagggtg gtgagcatct 120
acttaattaa tttgcttaca gccgatttcc tgcttactct ggcattacca gtgaaaattg 180
ttgttgactt ggggtgtgga ccttggaagc tgaagatatt ccactgcaa gtaacagcct 240
gcctcatcta tatcaatatg tatttatcaa ttatcttctt agcatttgtc agcattgacc 300
gctgtcttca gctgacacac agctgcaaga tctaccgaat acaagaaccc ggagtcgag 359

```

<210> 432

<211> 922

<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (787)

<220>
<221> unsure
<222> (803)

<220>
<221> unsure
<222> (817)

<220>
<221> unsure
<222> (853)

<400> 432
gaattcggcc aaagaggcct aaattggagg catgatgaag actctgctgc tgtttgtggg 60
gtgctgctg acctgggaga gtgggcaggt cctgggggac cagacggtct cagacaatga 120
gctccaggaa atgtccaatc aggggaagtaa gtacgtcaat aaggaaattc aaaatgctgt 180
caacgggggtg aaacagataa agactctcat agaaaaaaca aacgaagagc gcaagacact 240
gctcagcaac ctagaagaag ccaagaagaa gaaagaggat gccctaaatg agaccaggga 300
atcagagaca aagctgaagg agctcccagg agtgtgcaat gagaccatga tggccctctg 360
ggaagagtgt aagccctgcc tgaaacagac ctgcatgaag ttctacgcac gcgtctgcag 420
aagtggctca ggcctgggtg gccgccagct tgaggagtgc ctgaaccaga gctcgccctt 480
ctacttctgg atgaatggtg accgcacgca ctccctgctg gagaacgacc ggcagcagac 540
gcacatgctg gatgtcatgc aggaccactt cagccgcgcg tccagcatca tagacgagct 600
cttccaggac aggttcttca cccgggagcc ccaggatacc taccactacc tgccttctag 660
cctgccccac cggaggcctc acttcttctt tcccaagtcc cgcacgtcc gcagcttgat 720
gcccttctct ccgtacgagc ccttgaactt ccacgccatg ttccagccct tccttgagat 780
gatacangag gctcagcagg ccntggacat ccacttnac agcccggcct tccagcacc 840
gccaacagaa ttnatacgag aaggcgacga tgaccggact gtgtgccggg agatccgcca 900
caactccaca ggcaacctcg ag 922

<210> 433
<211> 311
<212> DNA
<213> Homo sapiens

<400> 433
gaattcggcc aaagaggcct agtgtgagcc accacgcccg gcctagagtg ttttcttta 60
tcttttccag ttatttctac ttttttctgt ccgagcttat cctttgggct ttcccccaat 120
aggactgttg agtcagttac tgacttagca cagtgaatat gcgtcctaata acattcttta 180
ttttttattt ttttttattt ttgagacgga gtctcgtctt gttgccaggc tggagtgcag 240
tggcgcgac tcggctcacc acaacctctg actccctggt tcaagcgatt ctctgcctc 300
agcctctcga g 311

<210> 434
<211> 513
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (275)

<220>

<221> unsure
<222> (345)

<220>
<221> unsure
<222> (405)

<220>
<221> unsure
<222> (461)

<400> 434
gaattcggcc ttcattggcct aggattctac caggggaaga gactgctgca ggtcctatga 60
gattaaggat aaagaatgga agggcccgact ctagagtatg agagaggctt cagttacctt 120
tgggttggga taggacaggc tacaatggcc aggatacaag atgcaatggg tgactacttc 180
atggagggga gaggaggcag gcaagcactg ctattggctg gctgtgggca gagtaaatgc 240
ttctacttgt aaacaaatat aacttcttgc cagtnaactt gttcccccca ggatctgtct 300
gcatctcctt attttctctt atagtcacatc aggagaacta aaaaanattgg gataagccac 360
agagatgtca ttgataatag tagtaagagg agctaataatt tattnagacat ctaactctgtg 420
cctgcatgta ggtaatccta ttactcattt tagaatgaaa nagacaaatg agtaatcagg 480
ttgatttatt tactcaaaagt cacggctctc gag 513

<210> 435
<211> 507
<212> DNA
<213> Homo sapiens

<400> 435
gaattcggcc ttcattggcct acacgaatcc tatcaattct cactcaacat ttctgtctc 60
tcactctccc gttctgtcag ttcacatgaa acattctctg ccttctctac tcccatcagg 120
ttggctttca ctgtctgttt ctgcttctct cactctcaca cagtcagctc tcaactcaaca 180
tttctctgct cccgcccctc catattctgt cactctcac tcagtattcc cggccgtctc 240
gaccttgagt gttcccgggt catgtcagtt cccaatgaac acttctctggc ctccattctc 300
actacgcagc tcctcttctc cgcacaaatc ctgttgcttc tcattcaaca ctctctgcct 360
tcctactttt ccttgtgtta gttctcagga acatttccag ttcttttcca tcaatcctgt 420
tttgctctcc aatcttctct ttctgcccgt tcaaatccta aggatgaccc tcctggaaca 480
atgacagtgt tttaccaccc actcgag 507

<210> 436
<211> 513
<212> DNA
<213> Homo sapiens

<400> 436
gaattcggcc aaagaggcct actttaaatc aagcagattt ggccaggcac ggtagctcat 60
gcctgtaatc ccagcacttt gggaggctga gctgggtaga tcacctgagg tcaggagttc 120
gagaccagcc tgaccaacat ggagaaaccc cgtctgtact aaaaatacaa aattaacagg 180
gcgtgggtgc atgtgcctgt aatcccagct acttgggagg ctgaggcggg agaatcgctt 240
gaaccgggga ggcgaagttt gcagtgcagc gatatcgtgc cattgcactc cagcctgggc 300
aacaagagtg aaactcagtc ctcaataaat aaataaataa ataaagcaaa ttctcatgaa 360
gcaaatggta ataattctaa tttattggaa gggccacaag aaagggggaa aagaacaact 420
aaaaaaaaac tttttctacc aacattaact tgtcctaaca atcaacttat ttttgcttta 480
atgggttcctc ctctctctcaa atgggtggctc gag 513

<210> 437
<211> 460
<212> DNA
<213> Homo sapiens

<400> 437

```

gaattcggcc ttcattggcct acaccagtga gtcattcaggg ttcccagggc tcttggactt 60
cccagtactt cctctaaact acttcccttt cacttccccg accatctaga tataacatgt 120
cgtcttttctt ccagcagctt gaacttttctt cctagccctt cacttaacct ttgccacttc 180
ccttacaacc cactctctct ctgtcacttt ttcaaaatga tcttcttcca cagaagcctg 240
gagacactga agttgtccct ggccaagtgg acacagggac tatggcccc atgatcatgt 300
cttctctctc ttccctccct gcagtaataa ctgagccagc agggccagat ttggggaccc 360
cattcaccag ccgcctaccc ccagaacttc aggtcctaaa ggacgaacag gcccatcggt 420
tgccccccaa gggtaatcag tctcgcacct tgagctcgag 460

```

<210> 438

<211> 402

<212> DNA

<213> Homo sapiens

<400> 438

```

gaattcggcc ttcattggcct agttacaaa tggaaagcag aggtcattcc atcattcatg 60
gtggccatca gacaacaaca cagcagttgc ttaggagaag catgggtctt cttcgtacgc 120
acaactgaga gaaatttccc ttaaagtggg cactgagtta gatgatacaa tgaatctaata 180
ggctacacat aatcatgaaa atcatggggc cttttattgt aatgtttctc atgcgggcta 240
acatgcgtag ttctagggaa aatatgatgc tgtccaaaca tacagctatt tggtttggct 300
tatctaaaga taaaatacat agtatccaga gaaatagatg aactgtatgt cctccataca 360
gtctcccata aatattattt ctttttgcag ctgacctctg ag 402

```

<210> 439

<211> 374

<212> DNA

<213> Homo sapiens

<400> 439

```

gaattcggcc ttcattggcct aggaagagga taaaatggaa gatcaaaaca ttatccaggc 60
tccacagaaa gaagtaggaa agggctgcga tcttgatgcc caccacaaga gcacaggtgt 120
cttccaggat gaagagctgc ttttcagcca caagctccaa aaggacaatg acccagatgt 180
tgaccttttt gctggcacca aaaaaaccaa gctgttagag ccaagtgttg ggagcctgtt 240
tggggatgat gaagatgatg atcttttcag ctctgccaag tcccagcctt tggtagaaga 300
gaaaaagaga gtagtgaaaa aagaccactc tgttaactct ttcaaaaacc agaaacatcc 360
tgaatccact cgag 374

```

<210> 440

<211> 281

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (48)

<400> 440

```

gaattcggcc ttcattggcct aggtgtggaa agaaaacaaa acaaaacnag aaatctcttg 60
taaaatattc caggtcaaag ttgtctctc tccaaacctt gcagaagcac ctttcttctc 120
ttcagcgcac tgttttggga ctgtttatgc agcagatgta agtagacaac atggactcca 180
tgtgacatgc ctctaatagt aaagataaag tattactgag gttaaaaata aaaattgagt 240
agtattaatt taaagtgcac catcaggaca acaaactcga g 281

```

<210> 441

<211> 306

<212> DNA

<213> Homo sapiens

<400> 441

```

gaattcggcc ttcattggcct aagagttgtg tggttcctcc cattggtttc taggctgttt 60

```

```

gttgttttga tttgtattga taggagacct acagtggcca cagctgattc catggaattt 120
tttttagcatc tgtattcaaa atattctttt tagactgtga gaataaaacc aaaacaaaaa 180
actctagctt tgaaagatac taaattgtag atattataga gtaggttttt gttttgtttt 240
gtttttttga gacaaagtct agctagcttt gttgcctagg ctggagtgtg atgacaccat 300
ctcgag                                     306

```

<210> 442

<211> 273

<212> DNA

<213> Homo sapiens

<400> 442

```

gaattcggcc ttcattggcct agaaataata aaaagtactg aacaggaagg gcttctggag 60
acttctccag agattgacac caagcatttc attagggccc actttgtgac tattctgtta 120
gtcacaaatc taccaaatata tcccatagtt taaccattta ctccctaaat atttatgtgt 180
ataggaatta cctgggtata ttgttaaagt gcagttttct gtaggtcttc ccctctctcc 240
tccctctctac tgggtctcccc cccccaactc gag                                     273

```

<210> 443

<211> 334

<212> DNA

<213> Homo sapiens

<400> 443

```

gaattcggcc ttcattggcct acattagtgt agatttctgc aggaacatct atccagggtga 60
gaggtcgaat aagtgcagga aaaggcacat aagcccaata agaataattt tgtgtagcag 120
gtaaatcagt gtgagaggaa actggtgaga cagaaagtat aaggaggaga ataattaaat 180
aaaaccaggt gtaagcgaga ttgagtgtctg aaggagggaag agaagaacag agggatgtta 240
ttgtcaggct aatagaaatc gctgtcgcct taatccaagc ctacgttttc acacttctag 300
taagcctcta cctgcacgac aacacagact cgag                                     334

```

<210> 444

<211> 300

<212> DNA

<213> Homo sapiens

<400> 444

```

gaattcggcc ttcattggcct agcaatatac aattttaaaa atacacatac atacatacat 60
atgtatacat ttccagtttt aagattttgc gagggcttta taagaaaaca aaaattccct 120
caggctatag aattatgttg tcatatatca gaaaagtact gatgtatcca tttatatcca 180
atgcgcacca caccggcaca ttgtgattta attcaccgct tgaatctata tttctaacca 240
cagtgaattc agtaaaaata ccgtataatg aacatttcag cttctttctta cttactcgag 300

```

<210> 445

<211> 309

<212> DNA

<213> Homo sapiens

<400> 445

```

gaattcggcc ttcattggcct agtttgacca tttgtagtat acacagtga acttgattct 60
ctgttgcata aaacactata tttttttgga aatgttactg tccaaaagcc tcttccctcc 120
ctttcccttt cctatgtact tccttcatac ttgctttact gatcagccag gcaatagcca 180
tccaagagct agagcatgaa acagggccct ttccaagtag gctctgggtg tcctaagcca 240
gcgtgtgccc tctggtttag tgagtgtaat agagtccctg gcacctttct ttgcaaatga 300
ggactcgag                                     309

```

<210> 446

<211> 177

<212> DNA

<213> Homo sapiens

<400> 446
gaattcggcc ttcatggcct aattgaattc tagacctgcc tggggctctg tctttcattg 60
tgggagagag atgggggagt aatttttgcg tctctggaca gagccccagg gccgggaaag 120
ggcacacaat ggggttcttg atgctttctc ctttggtctaa ccagaagatc actcgag 177

<210> 447
<211> 325
<212> DNA
<213> Homo sapiens

<400> 447
gaattcggcc ttcatggcct aattgtatcg taacctttaa accaatctcc agctgtatgg 60
gagatggtag ttttactatc cccattttat aaatgaggaa attgaggtag agagcagtaa 120
aataattttc ccggttaagc aggttaagtgc tacaactgtg attgaccttt gaacctgacc 180
ccagagcact gatgtaatct gtctgtaccc aaaatggttt cagtttatct ttattcaggc 240
gcagttcaaa gaatcttata ctttgctttt taactactct attctccctg gtgactagga 300
tatcttatac ccccttgagc tcgag 325

<210> 448
<211> 299
<212> DNA
<213> Homo sapiens

<400> 448
gaattcggcc ttcatggcct aaattttaat ggtgtatata ttcttcaacc tgaagttatt 60
tcagcatcag ctgatggaag taaaataaca gctcaagact cattgggtgtt acctattttt 120
cagatgtttc aagatagtgg ttttcagaaa aactggtctt ggaactcatt tttcaagatt 180
catcctcaag tagtaaatcc tgtgcaacag ccaggacaca gattgcttat tctctggaga 240
atactgtaca aaaaaacttt atggtatcaa gcacaattaa atcgaagagt tcctgaagc 299

<210> 449
<211> 326
<212> DNA
<213> Homo sapiens

<400> 449
ctcgagactc tgggagttca acaccaacct agcaacatga caaaaccccg cctctacaaa 60
cataaatcaa aaacaaaaat cattaacctt gactgagtca agttcatctg cagactgaaa 120
aaaataaagt gtaacagaat ttgtatttaa aaaacgcttt caaaaaagca tttcaaaatg 180
ctctaagtat gtttcaaaaa tacacttaaa aatatgtttc caacacactg aagggtattt 240
actaagatcc acaattacag ttacgatata aactgtaagc taaaaggcag caacttaagc 300
tgagacagtt actaacatcc ctcgag 326

<210> 450
<211> 387
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (164)

<220>
<221> unsure
<222> (301)

<220>
<221> unsure
<222> (380)

<400> 450
gaattcggcc ttcattggcct aggggaagct tgtaaataat gttagatatt taaaacactt 60
aatattatga agtagaattc cagattataa taagttattt agccaaaatg atgactcaaa 120
aattttttaa aaggcaaaaa ctttttttca ttaagagaga agantcagct ttccaatcta 180
ctcctgtctt aactgcctgt tttttggaag tttattctca aggtgcaaac aaaagtcttt 240
aattattctt tcctattaca tgaacatctt attcaaggga gagaaagcca aaattcacc 300
ntgatttagt ctacgggtta catcaacccc aactttttaa tgaaacctta tagatgattc 360
tctctgatct cagccagttt tctcgag 387

<210> 451
<211> 318
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (141)

<400> 451
gaattcggcc ttcattgccta caggaatgca ttcttgacat ttccgaacac acattaagt 60
aaaatgactt agaagaacta agggtagatc actataaatg taacatacag gcattctgtac 120
atgttttctga ttccagtaca nataatagtg gatctcaacc aaaacagaag tcagatactg 180
tgctttttcc agcaaaggat ctcaaggaaa aggaccttca ttcaatattt actcatgatt 240
ctggtctgat aacaataaac agttcacaag agcacctaac tgttcaggca aaggctccat 300
tccatactcc tcttcgag 318

<210> 452
<211> 467
<212> DNA
<213> Homo sapiens

<400> 452
gaattcggcc ttcattggcct aagaaactac agtaaaactgt catccatgat cccactgcag 60
agaaaaccat tgccgacatt tttagcattt tcctaccagt tcccccttc caaagtgtga 120
ttatttataa accgtcactc tgaggaatgt tgattgtgtt cgtaagaaaa ctcatggctt 180
aggagccaga gtaagcagga ctactatgtt aaacagcagg tttgactaat atattttctt 240
aattgcatca aacactagtgt ttatattaag tcaaaagtct tcacagatta tttttctcaa 300
gaggatttca gtgcttcagt gtgcacatta atatcagttc cacttgcttt tcagtgtgtt 360
catagtaatg agacgttata agtgaatata aatctacctc taaagagatt attgatttgt 420
tttattttac ttaagatttg aattccaaat ccagtacaca gctcgag 467

<210> 453
<211> 322
<212> DNA
<213> Homo sapiens

<400> 453
gaattcggcc ttcattggcct agcttcagtt ttcattcatc ctctgtctca gcactgtcag 60
ccaagagctt actcagcaga caccacatac tgcagcagtt cctagtgtga aaatctgtgc 120
cactagaaaa tgcttcacct ccatttcttc acctgggcag ttctctgttt aaaattgtgg 180
gctgatttgg tcttctcttc ctctccccc tggtactgcc ctgcagccct tgttcagggtg 240
tacagaccct tattctggcc tctagtgtcc ttgtctgtca tgacacaccc ttccgccc 300
atacctctga ccccaactcg ag 322

<210> 454
<211> 263
<212> DNA
<213> Homo sapiens

<400> 454

```

gaattcggcc ttcattggcct aagggattta aagagttttt cttgggtggt tgtcaaactt 60
ttattccctg tctgtgtgca gaggggatcc aacttcaatt tttctgcagt ggctctgggt 120
ccagccccctt acttaaagat ctggaaaagca tgaagactgg gctttttttc ctatgtctct 180
tgggaactgc agctgcaatc ccgacaaaatg caagattatt atctgatcat tccaaaccaa 240
ctgctgaaac ggcagcactc gag                                     263

```

<210> 455

<211> 536

<212> DNA

<213> Homo sapiens

<400> 455

```

gaattcggcc ttcattggcct aggtgggtggg tgctccgct gcactaggcg cacccttgca 60
gaggtggctg gttgtctctt gaaggtcccc ctggatggta atcctggctg ctttctgcac 120
ttgtatataa agtcctcccc aagatggcct gtggtctgcc tcttggaac caagaagccc 180
gcagtgccat gtgacacctg aggcattggac tggagcccca aaggcagggt acacccttct 240
cctgaacctg ctttttcttt cctctatatg gctccatttg tggcaaagtt gttgactga 300
aacttgtgca tgctgggcaa ggacaagctg gctcaaagag caaccagcca cctctgcaa 360
ggtgtagcag gagccggtgt accagtcacc aattagcgtc cggacatgta catcacttct 420
tccaccctaa aggtagggcc acagtgccat ctgcttttct taaggcctct gctccatcag 480
caataagggtg gcagacactc aggctgtggg aacctggcca tccccacttc ctcgag 536

```

<210> 456

<211> 757

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (193)

<220>

<221> unsure

<222> (345)

<400> 456

```

gaattcggcc aaagaggcct aggcctgctc ctgcagcaac caggccagcc gggatgatctg 60
cacacggaga gacctggcgg aggtcccagc cagcatcccc gtcaacacgc ggtacctgaa 120
cctgcaagag aacggcatcc aggtgatccg gacggacacg tacaagcacc tgcggcacct 180
ggagattctg canctgagca agaacctggg gcgcaagatc gaggtgggcg ccttcaacgg 240
gctgccccagc ctcaacacgc tggagctttt tgacaaccgg ctgaccacgg tggccacgca 300
ggccttcgag tacctgtcca agctgcggga gctctggctg cgganacaac ccatcgagag 360
catccccctc tacgcttca accgcgtgcc ctgctgctgg cgcctggacc tgggagagct 420
caagcggctg gaatacatct cggaggcggc cttcgagggg ctgggtcaacc tgcgctacct 480
caacctgggc atgtgcaacc tcaaggacat ccccaacctg acggccctgg tgcgcctgga 540
ggagctggag ctgtcgggca accggctgga cctgatccgc ccgggctcct tccagggtct 600
caccagcctg cgcaagctgt ggctcatgca cggccaggta gccaccatcg agcgcaacgc 660
cttcgacgac ctcaagtcgc tggaggagct caacctgtcc cacaacaacc tgatgtcgct 720
gccccacgac ctcttcacgc ccctgcaccg cctcgag                                     757

```

<210> 457

<211> 897

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (7)

<220>

<221> unsure

<222> (212)

<400> 457

```

gaattcngcc aaagaggcct aaaatgtttg gcacttttgc actttattgc ttctttcttg 60
cgacagtcc agcactcgcc gagaccggcg gagaaaggca gctgagcccc gagaagagcg 120
aaatatgggg acccgggcta aaagcagacg tcgtccttcc cggccgctat ttctatatcc 180
aggcagtggg tacatcaggg aataaattca cntcttctcc aggcgaaaaag gtcttccagg 240
tgaaagtctc agcaccagag gagcaattca ctagagttgg agtccagggt ttagaccgaa 300
aagatgggtc cttcatagta agatacagga atgtatgcaa gctacaaaaa tctgaagggt 360
gaaattaaat tccaagggca acatgtggcc aaatcccat atatttttaa agggccggtt 420
taccatgaga actgtgactg tcctctgcaa gatagtgcag cctggctacg ggagatgaac 480
tgccctgaaa ccattgtcta gattcagaga gatctggcac atttccctgc tgtggatcca 540
gaaaagattg cagtagaaat cccaaaaaga ttgggacaga ggcagagcct atgtcactac 600
accttaaagg ataacaagggt gaagatgccg gatgtggagc tctttgttaa ttgggagac 660
tggccttttg aaaaaaagaa atccaattca aacatccatc cgatcttttc ctgggtgtggc 720
tccacagatt ccaaggatat cgtgatgcct acgtacgatt tgactgattc tgttctggaa 780
accatgggccc gggtaagtct ggatatgatg tccgtgcaag ctaacacggg tcctccctgg 840
gaaagcaaaa attccactgc cgtctggaga gggcgagaca gccgcaaaga tctcgag 897

```

<210> 458

<211> 520

<212> DNA

<213> Homo sapiens

<400> 458

```

gcggggatcg acaagctgcc catcgaggag acgctggagg acagcccga gacaaggctt 60
ttactagggtg tttttgaaga agatgccaca gctatttcca actatatgaa ccagttgtat 120
caagctatgc atcggattta tgatgcacag aatgaattaa gtgcagcaac acacctgacc 180
tcaaaacttt taaaagaata tgaaaaacag cgttttccat tgggaggtga tgatgaagtt 240
atgagctcta cattgcaaca gttttcaaaa gttatagatg agcttagctc ttgtcatgca 300
gtgctttcaa ctcaacttgc tgatgccatg atgttcccca ttaccagtt taaagaaaga 360
gatctgaaag aaatactaac attaaaggaa gtatttcaga ttgcaagtaa tgatcatgat 420
gctgcgatta atagatatag ccgtttatca aaaaaaagag aaaatgacaa ggtgaagtat 480
gaagtaacag aagatgtgta cacatccaga aagactcgag 520

```

<210> 459

<211> 525

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (53)

<220>

<221> unsure

<222> (57)

<400> 459

```

gaattcggcc aaagaggcct actcagggtg agctcttctg ttgctcattt gtnccnaat 60
ttttaagggc tttttctcag tcaatagttt gtacaaactg gtagtttaa cttcattacc 120
catttcatta aagttgatgg gtcgtgtgat gagatgcatt taaggccgat agtgatagat 180
gtttttttta tttcttgaac acaggctttg tctgaatgat gttcttttat ctcttgaaca 240
caagctttga atgataacta cagggtttta gtgctgttac attaatacca taatgtgatg 300
tgttagaaac aaaggatat ttcaaaagta gatatttgaa aattctctag tctcaatatg 360
tatgtgtatt gaataatact taaaaataaa tgtgcaattt gctagtagga caatgcagtg 420
actgactagc attaggtatg tttcttttat atcctagcta tgtcccactt tcttctaagt 480
gcaatccttt catgttcact tgctgtttta ccccatctac tcgag 525

```

<210> 460
<211> 617
<212> DNA
<213> Homo sapiens

<400> 460
gaattcggcc aaagaggcct acagaataat ggaatataat atgtcttcat aatataacaa 60
cactaataca ctaatagtaa gattaagtta ggcagtcttc taccaaatgt gtaatggaga 120
ttgcctcaaa attgtgtcca cataatccac gctcatcttg caaagcgcta ttccaggcac 180
atcattggaa tacaggaagt agccctgcac ctgccagtga gctcgccatt cactgattgg 240
aagagtggacc tggcatcttg gaaatcattg tgtgtcttca ggagaatgtg cagtgtcttg 300
taacaactaa ttataatgca aattagggct acattgtaat ctgctttgtt aatgaaaatg 360
ataaaacaga atattgacaa gctaggacac ctgtgggtatc ttttaattgta tctccttcag 420
aagtttgctt cttatggtat aataaagtat ggaagaatat tgagtatatg tttactcttg 480
gcctgggaga acttaacttt ctagagcagt ttgttgactt gtgtgcaatg gggagaggta 540
ccatgatgac actcacaggg agccactgtt cactgacact tggaagcggg cattgttaat 600
atcacggacg actcgag 617

<210> 461
<211> 886
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (199)

<220>
<221> unsure
<222> (232)

<220>
<221> unsure
<222> (249)

<400> 461
gaattcggcc aaagaggcct acagcacttc tttggaaaga ggaagaatgc aaagttcagt 60
atttcaatac tttgtatttt acttgaaatt acccttagta gcatcttttt tttcctgtct 120
gaaagctttt gtgtggatga gaagggacat ttcatttcct cccttaacaa agtgtcattc 180
tgaggttctc atgtgtgtn tttggaaatag agatactggg tttgtagagt tngcctttgg 240
gtatgtttnc tttttttctt aaatctccaa ggaagagaac tgactaaaat agtaggaaca 300
tgaaagtatt aaatgccaat taatttgttg tagtaaagta tcttcattag cgttatactc 360
catcatatct ggtgtaaact gctcacagaa aacctatga aaccaaaggg ggaccattca 420
ggtctaaaaa gcgacaggtc cgagactggg tctgtcacct gggcattttc aaagaggaca 480
ttttgaagaa tttgcatatt cagattttta aaatgcactt aacatacttc attacagatt 540
tcttgggtag ggaggatggg ataggccagg gatgggatgg aatcagttct gcctgggaaa 600
ctaataccgaa tcattttacct ttctgtatta accttggcct gtcctaaaaa gagaacgact 660
gtttcatcat gagttgctct gagttttgtt aatgtttgtg ttgggtggatt gacggttaaa 720
tgaagcattt agctggaata tgaacttttg gagttttcat gttgtcctgg atttctcttt 780
gtaaaccctt aaaccttagc ccctggttga ttgtgttaaa ccattatga gaatgttatt 840
taaagttgta ttataattgc aacctccatt ctagacctgc ctcgag 886

<210> 462
<211> 396
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (146)

<400> 462
 gaattcggcc aaagaggcct agtcaacatg aaggctctca ttgttctggg gcttgtcctc 60
 ctttctgtta cgggccaggg caaggctctt gaaagggtgt agttggccag aactctgaaa 120
 agattgggaa tggatgacct ctggtngaac cctacagtcc cctactcaca acccctacac 180
 tctcctaccc atgacccctg gcagaaccct acagtccctc actcacgacc cctacactct 240
 cctaccatag acccctgggt gaaccctaca gtccctactc cacgacccct acactctcct 300
 acccatgacc cctggcagaa ccctacagtc ccctactcac gacccctaca gtccctactc 360
 catgacccct ggagtaacct tacagtccca ctcgag 396

<210> 463
 <211> 406
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (259)

<220>
 <221> unsure
 <222> (386)

<400> 463
 gaattcggcc aaagaggcct aagaaatatg actctcttgg tagagaagct tgagacacta 60
 gacaaaaaca atgtccttgc cattcgccga gaaatcgtgg ctctgaagac caagctgaaa 120
 gagtgtgagg cctctaaaga tcaaaacacc cctgtcgtcc accctcctcc cactccaggg 180
 agctgtggtc atggtgggtg ggtgaacatc agcaaaccgt ctgtgggtca gctcaactgg 240
 agagggtttt cttatctana tgggtccttg ggtagggtatt actctcccca gcatccaaac 300
 aaaggactgt attgggtggc gccattgaat acagatggga gactgttgga gtattataga 360
 ctgtacaaca cactggatga tttgcnattg tatataaatg ctcgag 406

<210> 464
 <211> 395
 <212> DNA
 <213> Homo sapiens

<400> 464
 gaattcggcc aaagaggcct agaacctctc cagcgcacg aactcagcca acgatttctg 60
 atagattttt gggagtgttg ccagagatgc aaggggtgaa ggagcgcttc ctaccgttag 120
 ggaactcttg ggacagagcg ccccgcccg ctgatggccg aggcagggtg cgaccagga 180
 cccaggacgg cgtcgggaac cataccatgg cccggatccc caagacccta aagttcgtcg 240
 tcgtcatcgt cgcggtcctg ctgccagtcc tagcttactc tgccaccact gcccggcagg 300
 aggaagtcc ccagcagaca gtggcccccac agcaacagag gcacagcttc aagggggagg 360
 agtgtccagc aggatctcat agatcagaac tcgag 395

<210> 465
 <211> 292
 <212> DNA
 <213> Homo sapiens

<400> 465
 gaattcggcc aaagaggcct actatccatc tatctatcta tccatctatc catctatccc 60
 tctcttctct caataaaata tccattgagg tcacatcatg tgatcgactt cctccctctc 120
 tcaatctccc tacaagtccc gaaggaaata agtacactct gttcaaacca cttcctccta 180
 tctgagaacc gctaaggagg gaggcaattt gattatggta attctagcta agacagcaat 240
 tttaggggtt gggggctcag tgggtctctt ttgttgtaa acagctttcg ag 292

<210> 466
 <211> 408
 <212> DNA

<213> Homo sapiens

<400> 466

```
gaattcggcc aaagaggcct aggtacagta ggtttataaa cagaagttta aacttatttc 60
tttcatatatt catcaatgtc tgaagaagtt acttatgcag atcttcaatt ccagaactcc 120
agtgagatgg aaaaaatccc agaaattggc aaatttgggg aaaaagcacc tccagctccc 180
tctcatgtat ggcgtccagc agccttgttt ctgactcttc tgtgccttct gttgctcatt 240
ggattgggag tcttggcaag catgtttcac gtaactttga agatagaaat gaaaaaatg 300
aacaactac aaaaacatcag tgaagagctc cagagaaata tttctctaca actgatgagt 360
aacatgaata tctccaacaa gatcaggaac ctctccagca cactcgag 408
```

<210> 467

<211> 487

<212> DNA

<213> Homo sapiens

<400> 467

```
gaattcggcc aaagaggcct aaaaagagaa aaaagaaatt tagaagaata acaagttatt 60
ccaaatgaag gcgtaagaaa gggaataata acaataataa gaggagtgtg tcatgaggaa 120
aaaccaaagc ttgaaaattc aacaaagcca gtgaagctca ttcttgaaaa catgaatcac 180
actcatgaat tctaactaca atgaaaaaga gaaagaaaga gcaggcatgc atttccatat 240
gggagtgtgc cagcagacag ccctacagat cgtacacacg ttttccaaaa ctaacaatgg 300
aacaggcgcc aaacctatgc caatatacta gaaattgcag attaaataga tgaaatattc 360
taaaactggag ttacataaat gaacataaga gtaatcagag aacttgactc attttagatg 420
tgtgtgtgtg tgtatatata tgtgtgtgtg tgtgaaaaac attgactata ataaaaataa 480
tctcgag 487
```

<210> 468

<211> 600

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (503)

<400> 468

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gaattcggcc aaagaggcct aatgatgcaa tagcttgaat attagttata gtatatcaga 60
ttgatgcact tctgtgaaaa aggtcacact ctatgtctat ttcaaaatgc agaccctgca 120
tttttgtaat gttttaaatc cacagagaga cagttagagg atgaaaactg gaaactgaag 180
aataatttta agaatgctaa gctctctgct ttattttatgt aagttacatg acataaaatg 240
tcagggaagt gttttgacta ttactgtaca aaataggaag aaccaactca gtgaacaaat 300
ttgccttctg tttgttgagt cagttatttt acaaaaaaaa ctattgctta ttttcagtag 360
acatttttag ttttccatga atactgaaaa attaaagact ttaagttctg atcatgaaaa 420
acaaacaaat ttatttcacc aaaaatattt tcaacttagt tattattaga taaacatata 480
acttcatata ttaaaatagt agnaaagcaa ggtaaatagt atattttatt acattaagca 540
aattaatgta tatatgccat aggcataaat atttagaatg ttaattagc actactcgag 600
```

<210> 469

<211> 887

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (367)

<400> 469

```
gaattcggcc aaagaggcct atgctgagtg gaaggaaaca gccaggtggc tgaagtttga 60
agaagatgtt gaagatgggg gagaacgctg gagcaagcct tatgtggcaa ccctttcatt 120
```

```

gcacagcctg tttgagctaa ggagctgcct tattaatgga acagtcctcc tggatatgca 180
tgcaaatagc atagaagaaa tttcagacct gatcctggat cagcaagaac tgtccagtga 240
cctgaatgac agcatgaggg ttaaagtgcg ggaagccctt ctcaaaaagc atcatcatca 300
gaatgaaaag aagagaaaaca acctcattcc cattgttcgc tcctttgctg aggttgga 360
gaagcantct gatcctcatt tgatggataa acatgggtcaa accgtgtctc ctcagtctgt 420
tccaactaca aatcctgaag taaaaaatgg agtgaattgt gaacatagtc ctgtggattt 480
aagcaaggta gaccttcatt tcatgaaaaa aattcctact ggggccgagg cctccaatgt 540
cctgggttga gaggtggata ttttggaccg tcccattgtt gcctttgtga ggctgtctcc 600
agctgttctt ctctcaggcc taacagaagt gccaatccca acaagatttt tgtttatctt 660
attgggtcca gtagggaaaag gtcagcagta ccatgagatt ggcagatcca tggccaccat 720
catgacagat gagatttttc atgacgtagc atataaggca aaagagcgag atgatctcct 780
ggcggggatt gatgagttcc tagaccaggt gacggtgctc cctccaggag agtgggatcc 840
ctccattaga attgagccac ccaaaaatgt cccttcccag gctcgag 887

```

<210> 470

<211> 488

<212> DNA

<213> Homo sapiens

<400> 470

```

gaattcggcc aaagaggcct acatttccgc acgctattgg gtgccatatt ctgtgtctga 60
ggttacaggc atgccagaac cctcccactg ccaagctggg agatcatttg ttatttctgt 120
agccataggc ttgccaaaac ctggggagct tgattctgaa aggagccatc atgccagagg 180
gcagcaagct ggcgagctgt ggggtgggtc caacactcga tatccaagcc tttcagcctg 240
agtgtaacca gagcccctcg gagagaaaag ggccctgagc tgcctcagct gctgtaaaat 300
tcctctaagt gcctagtcta agtcctcttc actcaggcca ccgccatttc aatggaaaag 360
gagttgggtc caaataggat gaaccaaact tctgtctgag caaaaaagtt ggcccagggc 420
tcaagagctt taaatggacc atgaataatg ttttacagcc tcggcactgg ggtgaactca 480
accccata 488

```

<210> 471

<211> 471

<212> DNA

<213> Homo sapiens

<400> 471

```

gaattcggcc aaagaggcct ataggcctct ttgggtgggtc tctgaaaaaa aaaaaagag 60
taagtgggat ctgtgtgagg agctggtgtg cagtgttctt ggagtaggac tgtccccaga 120
tgagagaaaag ccggccaggc tgtgccagcc tctgcagcct gttttcatct ctacagctgt 180
ttcgtctcgc cagcagagcc cagggatggt accaagtaca ctgtgagagc tgatactgga 240
gttggcagat gccctggggc aggcaccatg cagaacacac agaagtgggg ttagtgaaaa 300
ggctcccttcg aattccattt cgtttccctt aaaaaacaaa aacaaaagcc catactttgc 360
aaagagacag gacgagaaat aagaagttaa agaatttaa atgtctccct ttttctcaga 420
gccaatgtga aaaaagagcc cagcgtcgat tgaatctaga cccaactcga g 471

```

<210> 472

<211> 746

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (177)

<220>

<221> unsure

<222> (242)

<400> 472

```

gaattcgcgg ccgcgtcgac gttaatcgaa agagattatc aggggtgtgtc tgactaaacc 60

```

```

agtgagccca tgaaaaggct ctgcccttcc tgaggtcagg gatgttcagg atgagggatt 120
ctgtgctggc tttgaagacg gaggggctat atggtgagga cctgagggag accctangag 180
cagacagcat tctctggcca gcaacagcca gtaaggaaat aaggacgggtg gtcctacaac 240
cnacaaggaa ttgaattctg ccagcaacag aaaatgctgg gaggaggatc ccaagcttca 300
gatgagaacc agccctggct aacgggctga ttccagcctt gtgtgactct ggacacagag 360
cccggttggg tccggcctga cttctgagct agggacctgt gagttataaa catgtgctat 420
tctgagggtt ccatttgttg ttttttggtt gacagcagca gaaaactact gcctcctccc 480
tctggctgtg gagatttgcc caccttttag gtggcctaag cttaggaagt ggctaagct 540
tagggagtgg cctaagcttc cactttgctt ctattccatt tcctctcctt tcccagaggt 600
tttctccttc tctttctccc catttcttgt acaataaaca ataccactca tttcttctcc 660
tggattattt ccatcagcat acaaacctgc cgcattctac aaatatcttt ccctagtcac 720
tctcctctct caagggtgcca ctcgag 746

```

<210> 473

<211> 370

<212> DNA

<213> Homo sapiens

<400> 473

```

gaattcggcc ttcattgccta caaaaattag ctgggtgttg tggcatgggc ctgtagtccc 60
agctacttgg gaggtgagg caggagaacc gcttgaacc aggaggtgga gggttcaggg 120
agctgagatt atgtcactgc actccagcct gagcaacaga gtaagactct gtttaaaaaa 180
aaaaaaaaat taagtgtgct gtcttagtat cttgttatta tgtcctaaca gccatacaca 240
acttattaga aggatatcct gtagtgcctg tgttgagtct ctaggcttaa tctaattggc 300
tcttttagctg atgatcactt cgtgatggag tgctgtgtgt tgaattactc ctctccccta 360
cttctctcgag 370

```

<210> 474

<211> 607

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (136)

<220>

<221> unsure

<222> (359)

<400> 474

```

gaattcgcgg ccgcgtcgac tctgaacatg gcggcggttg tagctgtac ggcgtgaag 60
ggcggggggg cgagaaatgc ccgcgtcctc cgggggattc tcgcaggagc cacagctaac 120
aaggcttctc ataacnggac ccgggccctg caaagccaca gctcccaga gggcaaggag 180
gaacctgaac ccctatcccc ggagctggaa tacattccca gaaagagggg caagaacccc 240
atgaaagctg tgggactggc ctgggccatc ggcttccctt gtggtatect cctcttcac 300
ctcaccaagc gggaagtggc caaggaccgt gtgaagcaga tgaaggctcg gcagaacang 360
cggttgtcca acacgggcga gtatgagagc cagaggttca gggcttccct ccagagtgcc 420
ccgtcccctg atgttgggtc tggggtgcag acctgaggag cgctgcgacc ctctaggct 480
attgactgtt aagtcctcag gtttgccca gattccagtt cgtgcctctg aggtccacca 540
gagggcgcat gaagcccagg ctgttgccaa accctaccct gccccacacc aaggagccga 600
tctcgag 607

```

<210> 475

<211> 687

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (7)

<220>

<221> unsure

<222> (243)

<400> 475

```

gaattcncgg ccgcgtcgac ggccccagca aggcccatga gtgactgccc tgacgtattc 60
actgtgcctc tgggccactt cttcccctgt agatgtgggc ttgttgccct cagccggcct 120
ccctgagggg ggagaacact ggattattgg aaatgtttta atcactcttg ccattaccta 180
catctattag catagatgat gaaaagctgt tactgggtgat tatagatgag tatttccagg 240
acnacattct aaaagtacaa ttatttctta ttggggagat tacaggtagt ttggcaaagc 300
attgaagtac aaaggtacat ttcaattaa aaagcacact tctacaaaag atttggtttt 360
taaattatgg ttacacattt cagtaactca tagctgctgt gcaaattggg agacctata 420
agaaggcact tgtttgtaag ccagagaaga aactttaatt gcacccatc agattgttga 480
gggtgggtgtg atagtcttca ggtgcagtgc gttcattcac taacgctcac tgtcagtgcc 540
catgttttgc agctgcctcc atgtgactag tgagctgctg gtgaaagtcg tgtgaaatcc 600
tgtacactgt gtatagaaca atgtaatttt atgttaattg ttattacttt aaaacatata 660
taccatctga ttggctggta actcgag                                     687

```

<210> 476

<211> 545

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (126)

<400> 476

```

gaattcgcgg ccgcgtcgac cggagggtgc agtgagccga gatcacacca ctgcaactcca 60
gcttggggcg cagagtgaga ctctgtctca aaaaggaaat atcagagttg agaatagaag 120
gatgtngcat ggaaagtggg acagatgatg tttttgttgt cacaaataag gggagctaaa 180
ccttggcctg agcccttggt agagggagta cagagctgaa ttgtgtggat aacttacatt 240
ttaggcagag ggttgagaaa taccatttta gctacataga gtaagttaaa agttcagagg 300
tttttccgtc tctggcgctc aaggtgtaat gaattccttg gactgtactg agacctgcag 360
aagaacagac agggagccagt tgttcagaat catgaaaaat caagaaggct gtgattgaat 420
ggagtgtaaa cccacatttc ctttggaatg cagggtccaag ataaatgtgc tgcaacaaag 480
caaaaatgtg ggcaattttc atactgaagt tgaaccctgt tggggaggga gagtgggagc 540
tcgag                                     545

```

<210> 477

<211> 773

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (219)

<400> 477

```

gaattcggcc aaagaggcct acgagagccg aaggaggctg tgggagggtg tggcggcgcc 60
ggcgcgggcg cctgaggagg aggaggagaa gcggatgaga tcgtggggct caccagcgct 120
cccatggct tctgagtagc gtgggagtg agtcagcacc aagccaggct ccccgcgct 180
gccttgccct cacctgctcc tgcctctctg cagaggcana tgggtccgag ggcaccatgg 240
ggcccgcaga gtgacagcac gagaactgtg cgagaacgac gacctggcca ccagcctcgt 300
cctggacccc tactcggtt tccgcacca taagatgaac gtcagggtcta tcgctacctc 360
cgtgccttcc tgcgggaaag tggctttacc atcctgcctt gcacgcgcta ctccatggag 420
accaacgggg ccaagatcgt gtccactcgt gcttggaata agaatagaaa gctggagctg 480
ctggtgggct gattgcaga gctgcgggag gcagatgagg ggctgctgag ggccggtgag 540

```

```

aatgacttca gcatcatgta ctcaaccgc aagcggagtg ctcagctgtg gctgggcca 600
gccgccttca tcaaccatga ctgcaaacc aactgcaagt ttgtgcctgc agatgggaac 660
gcagcctgcg tgaaggtgct ccgggacatt gagcctgggg acgaggtgac atgcttctac 720
ggcgagggtct ttttcggcga gaagaatgag cactgtgaat ggcacacctc gag 773

```

<210> 478
 <211> 517
 <212> DNA
 <213> Homo sapiens

```

<400> 478
gaattcgagg ccgcgtcgac gagagttctt gctcttgctg taccagatac tctttttctt 60
ctactcctct tcagagagtc ctgaactatg cttttataac caaccacgt gtttctaact 120
gtgaattatg attgcatatg cctctaccac ggtgcttacc aactacatc ataaatattc 180
atttgcaatt tgtctccatt ctaggtagca aactctttca acataagaat tttatctaag 240
cactcttcac tttatgcctt tgccagtcaa cactatcctg atgttaacat ccatatgatg 300
taatcaatat tcagtcaaca aatatctgga gtagatagcc attgtacccc aaagtaaatc 360
atatgagccc tacttttaag aaatccaagc tgtcactgga ataaaaatga tgtttcatca 420
tccacaaagt aattattgca taaagaagcc ccatactctg gcatccactt tacaaaaata 480
aaaaatcagg gaaaggatga atcgatcatg actcgag 517

```

<210> 479
 <211> 202
 <212> DNA
 <213> Homo sapiens

```

<400> 479
gaattcgagg ccgcgtcgac atcattttta tgaaatgcct ttgtactact cctgtgtagt 60
catcatgtcc tccttccagc ctccaccacc aatcaaccaa ccaacttta tcttggcagc 120
taccagttgt ctgaatttta tacttttcgc tataatttta tctttctcag aatgtcataa 180
tacagtagcc cccgtactcg ag 202

```

<210> 480
 <211> 243
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (19)

<220>
 <221> unsure
 <222> (98)

<220>
 <221> unsure
 <222> (208)

```

<400> 480
gaattcggcc aaagatgcnt aatgctctca taccagtga aacagactgg tcaacttagt 60
ttttttgttt tgtgttttct ttttcttttt ttttttnac acgttttggt acacgagaac 120
gatgggtagg ccccatctgg ggtcttgggg agaaaagcaa gttccccgat ttattgaatg 180
ttcctgtttt gcattcccca tgctcgangc aggtccgtcg attgaattct agcactcctc 240
gag 243

```

<210> 481
 <211> 900
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (692)

<220>
 <221> unsure
 <222> (727)

<220>
 <221> unsure
 <222> (865)

<400> 481
 gaattcgcgg cgcggtcgac cgattgaatt ctagaccagc cttgctccca gctcaccac 60
 aagatgtgga cagctcttgt gctcatttgg atttctctct tgccttctat tgaaagccat 120
 gcggcatcca acgatccacg caactttgtc cctaacaaaa tgtggaaggg attagtcaag 180
 aggaatgcat ctgtggaaac agttgataat aaaacgtctg aggatgtaac catggcagca 240
 gcttctctctg tcacattgac caaagggact tcggcagccc acctcaactc tatggaagtc 300
 acaacagagg acacaagcag gacagatgtg agtgaaccag caacttcagg agttgcagct 360
 gatggtgtga cctccattgc tcccacggct gtggcctcca gtacgactgc ggctccatt 420
 acgactgcgg cctccagtat gactgtggcc tcagtgctc ccacgactgc agcctccagt 480
 acaactgtgg cctccattgc tcccacgact gcagcctcca gtatgactgc ggctccagc 540
 actcccatga cacttgcaact ccccgcgccc acgtccactt ccacagggcg gaccccgctc 600
 actaccgcca ctgggcatcc atctctcagc acagccctcg cacaagtgcc aaagagcagc 660
 gcggttgccaa gaacagcaac cctggccaca tnggccacac gtgctcagac tgtagcgacc 720
 acagcanaca caagcagccc catgagcact cgtccaagtc cttccaagca catgcccagt 780
 gacaccgcgg caagccctgt accccctatg cgtccccaag cacaaggctc cattagccag 840
 gtgtcagtgg accagcctgt ggttnacaca acaataaat ccacacccat gaccctcgag 900

<210> 482
 <211> 354
 <212> DNA
 <213> Homo sapiens

<400> 482
 gaattcggcc aaagaggcct atcaaaaacta accctttcct ctgacttctt agtcaaagaa 60
 catacacttt agctaatacc ccaagacaga agttcttttg tgctgagagt caacgagagt 120
 cacattctcc ttgaaaaggg aagggaagct ctatacttgg ataactgcgc agatccatgg 180
 ccccatagca caaaattcgg gcaactgaga acccagctgg cccccagctg gtaattcttc 240
 aacattcttg tggtgtcctaa cattgccaaa taggctggaa ggatttagag aacaggaagt 300
 aagctactgg gagataaggc tgcagctgtg aattatagac aggggaaggct cgag 354

<210> 483
 <211> 631
 <212> DNA
 <213> Homo sapiens

<400> 483
 gaattcggcc aaaggcctac tctgtgaact tcactactgg aaagcaacaa aggcagtcgg 60
 cataaaaaatg gggttctctca gcacagctaa cgttgaattt tgccttgatg tggtcaaaga 120
 gctgaacagt aacaacatag gagataacat cttcttttct tcgctgagtc tgctttatgc 180
 tctaagcatg gtctctcttg gtgccagggg agagactgca gagcaattgg agaagggtgct 240
 tcatttttagt catactgtag actcattaaa accagggttc aaggactcac ctaagtgcag 300
 ccaagctgga agaattcatt ccgagtttgg tgtcgaattc tctcaaatca accagccaga 360
 ctctaactgt accctcagca ttgccaacag gctctacggg acaaagacga tggcatttca 420
 tcagcaatat ttaagctggt ctgagaaatg gtatcaagcc aggttgcaaa ctgtggattt 480
 tgaacagtct acagaagaaa cgaggaaaat gattaatgct tgggttgaaa ataaaactaa 540
 tggaaaagtc gcaaatctct ttggaaagag cacaattgac cttcatctg taatggctct 600
 ggtgaataacc atatatttca aaggactcga g 631

<210> 484
<211> 487
<212> DNA
<213> Homo sapiens

<400> 484
gaattcggcc aaagaggcct aagggcattc cagaaagatg aggatatttg ctgtctttat 60
attcatgacc tactggcatt tgctgaacgc atttactgtc acggttccca aggacctata 120
tgtggtagag tatggttagca atatgacaat tgaatgcaaa tccccagtag aaaaacaatt 180
agacctggct gactaattg tctattggga aatggaggat aagaacatta ttcaatttgt 240
gcatggagag gaagacctga aggttcagca tagtagctac agacagaggg cccggctgtt 300
gaaggaccag ctctccctgg gaaatgctgc acttcagatc acagatgtga aattgcagga 360
tgcaggggtg taccgctgca tgatcagcta tgggtgtgcc gactacaagc gaattactgt 420
gaaagtcaat gcccataca acaaaatcaa ccaaagaatt ttggttgtgg atccagtcac 480
actcgag 487

<210> 485
<211> 558
<212> DNA
<213> Homo sapiens

<400> 485
gaattcggcc aaagaggcct acacgtaata aaaaacatgg gcttcaacct gactttccac 60
ctttcctaca aattccgatt actgttgctg ttgactttgt gcctgacagt gggtgggtgg 120
gccaccagta actacttcgt ggggtgccatt caagagattc cttaaagcaaa ggagtccatg 180
gctaatttcc ataagaccct catthttgggg aagggaaaaa ctctgactaa tgaagcatcc 240
acgaagaagg tagaacttga caactgccct tctgtgtctc cttacctcag aggccagagc 300
aagctcattt tcaaaccaga tctcactttg gaagagggtac aggcagaaaa tcccaaagtg 360
tccagagggc ggtatcgccc tcaggaatgt aaagctttac agagggtcgc catcctcggt 420
ccccaccgga acagagagaa acacctgatg tacctgctgg aacatctgca tcccttctctg 480
cagaggcagc agctggatta tggcatctac gtcattccacc aggcgtgaagg taaaaagttt 540
aatcgaacca aactcgag 558

<210> 486
<211> 971
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (11)

<220>
<221> unsure
<222> (83)

<220>
<221> unsure
<222> (364)

<220>
<221> unsure
<222> (387)

<220>
<221> unsure
<222> (445)

<220>
<221> unsure

<222> (546)

<400> 486

```

gaattcggcc naagaggcct actacttgcc cctcgttcc ttccccagcc ctttagagaa 60
gggaccatga tttgaaacg cancgccgtt ctccgcttct acagtgtctg cgggctcctg 120
ctacaaggca gccaaaggca gtttccacta acacagaatg taaccgttgt tgaagggtgga 180
actgcaattt tgacctgcag gggtgatcaa aatgataaca cctccctcca gtggtcaa 240
ccagctcaac agactctgta ctttgacgac aagaaagctt taagggacaa taggatcgag 300
ctgggttcgcy cttcctggca tgaattgagt attagtgtca gtgatgtgtc tctctctgat 360
gaangacagt acacctgttc tttattnaca atgcctgtca aaacttccaa ggcatatctc 420
accgttcttg tgttcctgaa aagcntcaga ttagtggatt ctcatcacca gttatggagg 480
gtgacttgat gcagctgact tgcaaacat ctggtagtaa acctgcagct gatataagat 540
ggttcncaaa tgacaaagag attaaagatg taaaatattt aaaagaagag gatgcaaatc 600
gcaagacatt cactgtcagc agcacactgg acttccgagt ggaccggagt gatgatggag 660
tggcggtcat ctgcagagta gatcacgaat cctcaatgc caccctcag gttagccatgc 720
aggtgctaga aatacactat acaccatcag ttaagattat accatcgact ccttttccac 780
aagaaggaca gcctttaatt ttgacttgtg aatccaaagg aaaaccactg ccagaacctg 840
ttttgtggac aaaggatggc ggagaattac cagatcctga ccgaatgggt gtgagtggta 900
gggagctaaa cattcttttc ctgaacaaaa cggataatgg tacatatcga tgtgaagcca 960
caaacctcga g 971

```

<210> 487

<211> 833

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (111)

<220>

<221> unsure

<222> (399)

<400> 487

```

gaattcggcc aaagaggcct aagaaagtga aaagggaaga aagatgtata cataaaaaata 60
cgaatggatt ctggaatttt tagtctagta cagactctct aaattgagtc nggatctaga 120
gaaagtttag aattctaact gtagattatt ttacatttag gacagtgaag agtggacact 180
ttaaaaaatag ctacttacat gctttgaaag gagctcagat aaaatatttg catgttcatt 240
gaacattctt cattaggctc cagtgggac atgttactat gctgtgagta tctggcatgg 300
aagatgttat catataatat gagacacagg aaaataatgg tctacttaat tgctgtttaa 360
gtatgattac acgtatttgt agttgtatga tgtcatgtng aacaaacatt tgtagacaa 420
gagattaaag tccgttggtg aaatctgatt ttgccaagag atggggaaag tacaagtatg 480
gccatctcct ttcactgtgt cccttctcag ataacctgtg aaaaagaagc tgagatagta 540
tgatagtgtc ttatttttgt aggtggattt ctggaaagtt ctgtcttctg gtgtgtgtat 600
gtatttgttt ttaattata agagtaatgc tcattgaaga aaacttgtaa aatagaaaaa 660
atagaaatat aaattatgca taatctcaca ccagaaaata actattgtta atgttttggc 720
atatttctgt ttgttttttg tttttttgag acagagtctc actctgggtg ccaggctgaa 780
gtgcagtggg gcgactctgg ctcactgcaa cctctgtctc ccgggtactc gag 833

```

<210> 488

<211> 522

<212> DNA

<213> Homo sapiens

<400> 488

```

gaattcggcc aaagaggcct agcaatcgct tacaggaagt tttgaatgac tactataaag 60
agaaggcaga gaattgtgta aaattgaata cccttgaacc cttggaggat caagacctgc 120
caatgaatga gcttgatgag tctgaggagg aagaaatgat tactgtagtc cttgaagaag 180
ccaaagagaa gtgggattgt gaatctattt gtagtacata ctcaaattta tataaccatc 240

```

```

cacagcttat caagtatcaa ccaaagccca aacaaattcg aatatcttct aaaacaggaa 300
tacctctcaa tgtcttacca aagaaaggac tcacagcaaa gcaaactgaa agaatacaga 360
tgattaatgg cagtgatctt cctaaagtat caactcagcc acgttctaaa aatgaaagca 420
aagaagataa aagagcaaga aagcaagcta taaaagaaga gcgcaaggaa cgaagagtgg 480
agaagaaagc taacaaatta gcatttaagc tggagactcg ag 522

```

<210> 489

<211> 643

<212> DNA

<213> Homo sapiens

<400> 489

```

gaattcggcc aaagaggcct acatattctc cgtagtcaca gtttcagaac tgagtaagga 60
tccttggtac ttggtggcat ctgttgaaact gaggagcatt tctcattgta aagattgcct 120
ttgttctgtc taaaagtctg gagaaatccc aaagactttt cctatgtact aggcatttta 180
ttttgattga cttacaaact cttcttaatc attatcaatc tcggtttttt tgtggtgcag 240
tggaaggaga aatagggtcta gtttctgcct ctgattagcc gcacagcctt gaacaaatca 300
catttcattt ttgaacttac ctctactgtt agactaggcg actcacattt gaggactttt 360
ctcgggtatc ttgaggggtt gtgacctga acccttaaac agtgcttttt tgttacacag 420
gagggtcttt ttggggggat gaccagtaca gacatgccag ttagttttac tagtgggatc 480
ccaaatccaa agcagtgtag tgggtgattg tcagtgacta accaggcagc taagaagtct 540
taggcagcag ccagacatg tatagagggg cagttagagg gagaacaggg gtgggaaagg 600
gagcaagggg cagatagctc agcaaggaaa gaatcggctc gag 643

```

<210> 490

<211> 434

<212> DNA

<213> Homo sapiens

<400> 490

```

gaattcggcc aaagaggcct aggggactgg agaatggcca tgccaagtgg cctgtataaa 60
aagtaaccga agtcatgggg ccagagtgcg atttttctga atgaaccaca aatggcatgc 120
tggtgattga aaaccactga agacaggaag aagaggaaca ggcagtttga aggttagcac 180
aaaaatcagg cattggcttg gcttctgcca ttggtgagac tcccattcaa tgatttcaca 240
tagcccttgg gctggccacc aaaactgtct ccttatttct ctccatgctg acctcctcct 300
cccctcagcc actgctcatt ccctcttctc ccagacacga aaattttagg tcgcttttcc 360
tcattcctct acactgtcct aagcctcagt agtagtcttc ttcttatctc tcccggagtg 420
ggggctggct cgag 434

```

<210> 491

<211> 218

<212> DNA

<213> Homo sapiens

<400> 491

```

gaattcggcg ccgcgtcgac caagtttctt cctgcataga gtggggtagt gattacctct 60
aggattgtga aggtggggag agaatgcgta taaagatgct gcttcccagt ctagtactgt 120
tttctgttct gtttgccagt ctagtgaatt gctcgatgac cagccaccac tctccctcat 180
tgcaagggca gataggagtg agctggctct ttctcgag 218

```

<210> 492

<211> 693

<212> DNA

<213> Homo sapiens

<400> 492

```

gaattcggcc aaagaggcct aaaagtaact tcaaaattta aaatactaga acgtttgctg 60
cgataaatct tttggatttt tgtgtttttc taatgagaat actgtttttc attacctaaa 120
gaacaatttg ctaaactatg gaaatcactc accttgatta tgtatagatt acataggaag 180
aacaatcaca tcagtaagtt atagtttata ttaaaggtaa ttttctgttg gctcataaca 240

```

```

aatataccag cattcatgat agcatttcag ctttttccaa ggtaccaagt gtacttattt 300
tgtgtgtgtt gttgtgtgtt tattttagaa ggaattcagc tctgatgttt ttaaagaaaa 360
ccagcatctc tgatgttgca acatacgtgt aaaatgggtg ttacatctat cctgccattt 420
aaccacacag ttaataaaagt ggctgaaaat aatagtagct ctggcttggg gcttgacctg 480
gttaaatact gtcttaaaagc tcatacaaaa caaataggct tttccataag tggcctttaa 540
gaaaacatgg aagacaattc atgtttgaca aatgctgaca ggggtgaagaa agcccagtgt 600
aaaaatgaat cgcgttttaa gtgattcggg taaagagttt gggctcccgt agcaaaactaa 660
tactagataa taaggaaaatg ggggactctc gag 693

```

<210> 493

<211> 228

<212> DNA

<213> Homo sapiens

<400> 493

```

gaattcgcgg ccgcgtcgac ttttaagcta tttgtctgtt aagtatataa taccaaaacg 60
cagggtgttt aaattaggat ttccaagtaa ttacgtcgt cttcaaaatt cctgggggtct 120
atcaatcaga aacgccagaa agtttgtgta ctagtctcac attgttaagg gagtatctat 180
aataaaattc aaatgcgtta ttttaaaata agtaaaggac ttctcgag 228

```

<210> 494

<211> 230

<212> DNA

<213> Homo sapiens

<400> 494

```

gaattcggcc aaagaggcct aattgtaaag aaaaggctta cagaatattt aaatcgtatg 60
gttaattttt tggtcataaa gttttatatt ttgttacttc atggaatata ttttccgtgt 120
cagaagacta gaagtttcgg gccgggcgtg gtggctcgcg cctgtagtct tgaactcctg 180
acctcgggtg atccccccac ctcggtccc ggagtggggg gatcctcgag 230

```

<210> 495

<211> 135

<212> DNA

<213> Homo sapiens

<400> 495

```

gaattcgcgg ccgcgtcgac aaaaatgggt atatcctttt atattgtatt aatgtcatgt 60
ctagtaatcg atcctaaaga aataaccagt cagccggcac agtgggtcac acctgtaatc 120
ccagcacgtc tcgag 135

```

<210> 496

<211> 522

<212> DNA

<213> Homo sapiens

<400> 496

```

gaattcggcc aaagaggcct ataggccgtg aatgattaaa taaaagtcta agttcacccg 60
agcctggata aaataaaact caaagcccag aaacttcaaa taaaataaga aaaaatcata 120
atttttcacc tcaaaaggaa actgagaaga gaagtatgat gtgacagaaa ctatgatttc 180
aaatggaggg tttcttttgt tgtttgtttt tcagaactag actcacattt tacaaaaggc 240
tccctaccca taaggaagaa agttttgaga gtaatgaggt tgatctgaac tgttaaaaac 300
tttctaactg agatatagca acatatgggt tggcagaata aaaatggcca caaaatcttt 360
aacattcctt ccataccagaa gtgaggggtc tatgttcctt ctccctgagt aagggtggggc 420
cactgagtat tttcactaag agaattcagc agaggctggg tgcgggtggc catgcctgta 480
atcccagcac tttaggaggc caatgcagca ggatcactcg ag 522

```

<210> 497

<211> 493

<212> DNA

<213> Homo sapiens

<400> 497

```

gaattcgcgg cgcgctcgac gtgggttcat ctgtggcact ggaatcagca gtcattcttc 60
aaatctgaga tccctaaatc cactgtcttg attgttcttt tgccagttgt caacaagccc 120
ttctcaaatt cttcttcagt tattttgcct ttcttaagtt ttttcaagag tcttggtgca 180
ttaagaagtt cttccatgtc ctcattcttca atatcagaac cctcttccct tttccttttc 240
tcattcatatt tttcttctctt ttcttttttg gccttctgct ttgaccaagc tttatttttt 300
atgaattttc ttctcccttc atttctctgtt ttctctcttc tttgttgctc caggagtctc 360
tgctctgctt tttctctgat tttatcttta aatggaatcg tgtcgggtatt aacgtccacg 420
ggcacaaaat ctggaaactg ctttctcttc aattctggca tcttgggcat cctcagcagg 480
gcaaaacctc gag 493

```

<210> 498

<211> 202

<212> DNA

<213> Homo sapiens

<400> 498

```

gaattcgcgg cgcgctcgac cccaggctgc tatggagggg caccacggct tttttgtttt 60
ttgtttgttt gtttttaate tcagccttgg cgtgagctgg ggccttctc tcttctccag 120
cctctccctt tcactcttca cccagcatcc tgccccctg tccaaaaaca gcaggacatc 180
agaccatcc catcacctcg ag 202

```

<210> 499

<211> 393

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (12)

<400> 499

```

gaattcgcgg cngcgtcgac ccctctccag atattcaggt gagaatcaga agccagccat 60
cacctttact ttgagaaatc tgggctctga gcgtcttgca tctgaatttc ccccaggcct 120
ctcatgccat ccattccctt tgagagcttc ctcccgttc gatcactgat tctacctgct 180
ctccagggag ctctggcttc ctccggggagc tgggtctcag atcccaggcg ctggtgccac 240
ctcagggttg caccaggct gggaaaaggg ttctctgcct tgccctggta tcacctttgc 300
agaggggaagg cacttggggc agttgctagt ctcacctcc tcctctttgc ctgttcatca 360
tagtggtctt tccacgttct ggccactctc gag 393

```

<210> 500

<211> 145

<212> DNA

<213> Homo sapiens

<400> 500

```

gaattcgcgg cgcgctcgac atttattaat gcatatattt ccctctgttg ttgtacaagt 60
aagttactct tttcctttaa tctgtaagat tcatgaaatt cggggccagg gaaacagttt 120
agccttaggg aagggaacac tcgag 145

```

<210> 501

<211> 182

<212> DNA

<213> Homo sapiens

<400> 501

```

gaattcgcgg cgcgctcgac tgggctgtcc ttgggtgtct tgctcttctc agagaacagt 60
ggtagggagg gcagctcaga ttctgaactc agggacagtc ggagcacctc ccgaggcact 120

```

gaggaagacc tggctcgctg ccttcctgga gggacaatct gctcttcacc tctaacctcg 180
ag 182

<210> 502
<211> 378
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (346)

<400> 502
gaatttcgac aagaggtgtt atctggaaga ttaataagtg ttcaatttaa aacattcagt 60
aagcttgtcc tgtattcctg cacgaagagt agaacagcaa tatattccat aaaagtaaag 120
caaaataaag ttattccaag taaactaaat tagaaggctt tttatgaact gggcaactgt 180
tggaactaag ctggtatggg gttgttagct gattgtaatg tgcccagcat tagaatacta 240
atccagattt ttatattacc catccttctt gtttcttctg agcagcagtc agagatcact 300
ggttggttca caggaataag caggattagc ctaaattgca gaaacnaact taaaacaaca 360
gtaggccatg aaggccga 378

<210> 503
<211> 427
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (59) .. (60)

<220>
<221> unsure
<222> (166)

<400> 503
gaattcggcc ttcattggcct accagaacat gcatatgctt ctttctagtt tatcagttnn 60
atacacagca gtctttgact ctctctttga aggaggtgcc tcatccttcc ttcagccact 120
ccccactcca ttctccccac cccctctcat ctgcacctgc ttttcngtgg cctgcatttg 180
gtacatttgc attctgctca gtagccacag taacgtctca ccactttggc tgggtgtctga 240
cacctgcagg tttccagcac tgccacctgg gggctcttcta accacagagc agatcatgcc 300
cctcctgctg gcgcttcttc aatactccaa ggagagcatt cgggctcctg ggtttggtat 360
gaaacccctt tgcaatcggg gccagcccat gtgtgcagct tcctcactag tcaactccaca 420
actcgag 427

<210> 504
<211> 270
<212> DNA
<213> Homo sapiens

<400> 504
gtaggccatg aaggccggcc ttcattggcct acagttagtg tctccatctg ggcaagagac 60
aacatgtgaa agtctcatth atgctggaag atagggtagg gttgagagt atggttacaa 120
gcattttaac ttacatctta caagagtgtg gtacagatta agtccttgat aatcatgttg 180
tatattttaa aacatctata gatgatttta tgtagaatgg gaattttaac attttaaatg 240
tgtttatttc tttggtgggg aaaactcgag 270

<210> 505
<211> 335
<212> DNA
<213> Homo sapiens

<400> 505
gaattcggcc ttcattggcct agtcctttca ggtaagtatt attactatta tgcccattgt 60
acagatggga aaattaaact cactagttta ggataaataa ccccaaaagt tcacatagct 120
gctaagtggg tgaatgaga tttgaattta ggcagaggat tccagagtgt gttctctttg 180
acatatgggc ataaccatct ttcattgtca ataaatatag acttcacctg tacttgatt 240
ggctgtatag tatttcactt tcattctact caaactctta gtaatttca catatcttca 300
tttcttgaaa ggattttttc tttacagtgc tcgag 335

<210> 506
<211> 317
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (293)

<400> 506
gaattcggcc ttcattggcct acacaaacta tgcattcttc acagcctcag ggaacttatg 60
cctctccacc tcccatgtca cccatgaaag caatgagtaa tccagcaggc actcctcctc 120
cacaagtcat gccgggaagt gctgggatac caatggaagt tggcagttat ccaaatatgc 180
cccatctca gccatctcac cagccccctg gtgccatggg aatcggacag aggaatatgg 240
gccccagaaa catgcagcag tctcgtccat ttataggcat gtcctcgga ccnagggaat 300
tgactggagt actcgag 317

<210> 507
<211> 546
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (173)

<220>
<221> unsure
<222> (250)

<220>
<221> unsure
<222> (292)

<400> 507
gcgattgaat tctagacctg cttcgtgtgc aaccctcacc atcctccac tccagaactc 60
ttagttgttg taaaactgga actctgtacc cactaaacaa cagcaaccac tgttctactg 120
cctgtctctg cgattttgac tactctaggt accacatata agtggaatcc tanagtactt 180
gtgtttttgc ggccacaggg ttttatttat tttcttttct ccacctccag aatccccgcg 240
ttctgtccn ggctggtttt gcttctcctg ggtcgtggg tgctatttgc angtgggtga 300
ggagccctct ccccatccat cctgcttctg tttctcctct ggggtgtaac tggcctctac 360
ctttgtctct gtctcctctg cctctgctct tgggttagctg acggtaggga aagtgtccag 420
cggaataggg gctgcagctg aagtcctggt caatctgtac atgaatgatc acagacctaa 480
ggcccaggcc acctctccag acctggtgag gacatgcacc cccagccttc acccacagct 540
ctcgag 546

<210> 508
<211> 379
<212> DNA
<213> Homo sapiens

<400> 508

```

gaattcggcc ttcattggcct acatctttct aactcaagga atgggtgctga ttttttaa 60
gtttgacacc aggccttggt tttccagctg agcattctca ttttgctttt ctctaagact 120
atcaaagaca aggtattaat agtaggatta ttccatagatc agaattgttc atacattcct 180
aaaggtttat gtggaaattg gcttaggaaa actttgagta gcagagactg aggatgagt 240
ctagagatga aatcaggaca gatttggtgc agttaattct tgccaagcaa attagtggta 300
aatgtcacat tgttatgtga attgagcaca tatttttaaa gaaagtgtac aaaaaatttt 360
tagaaccaca catctcgag 379

```

<210> 509

<211> 376

<212> DNA

<213> Homo sapiens

<400> 509

```

gaattcggcc aaagaggcct acttggtctt gataccttac tggacagtgt atttccaaat 60
gcagacaaca tatgttttac agagtcttca tttgaggatt ccagaaattt caaatattac 120
aaccactcct cacacgctcc ctgcagcctg gctgaccatg tttgatgctg tgctcatcct 180
cctgtctcatc cctctgaagg acaaactggt cgatcccatt ttgagaagac atggcctgct 240
cccctcctcc ctgaagagga tcgccgtggg catgttcttt gtcattgtgt cagcctttgc 300
tgagggaatt ttggagagta aaaggctgaa ccttggttaa gagaaaacca ttaatcagac 360
catcggcacc gtcgag 376

```

<210> 510

<211> 439

<212> DNA

<213> Homo sapiens

<400> 510

```

gaattcggcc aaagaggcct acaagttcaa caattccagg aaatatattt ctatcactgt 60
gccattccaaa acccaaacaa tgaccacaca catcaagtca gttgacgacg ttgtggtact 120
tggcatgaat ctacagcaagt ttaacaaact tactcagttt ttcattatgt ttgctggagt 180
ttttgtattt tacctaattt atgggtattt acaggaatta atattttcag tggagggttt 240
taagtctctg ggctggtacc ttaccttagt gcagtttgcc ttttactcca tatttggcct 300
aatagaacct cagcttattc aggacaaaag gaggagaata ccaggaaaaa cctacatgat 360
aatagctttt ctaactgtgg gtactatggg gttatcaaac acttccttgg gctacctgaa 420
ttaccttacc caagtcgag 439

```

<210> 511

<211> 289

<212> DNA

<213> Homo sapiens

<400> 511

```

gaattcggcc ttcattggcct actttaaatg ccctagctat tcccagaggg gtttttttgt 60
ttgttttttt ggttttgatt ttctttttgt ttttctttct tcttcttatt ttttctattt 120
gagtcttagc tcccatttaa gttatgcttc tgaccttgta tggctctgtaa gcttgcccag 180
aaataagacc actgttttga actaccacaa aagtataaat gaatatatta atgccacaat 240
ctttctgtgt gcctgtggag tctctgctga aatgaatcag gagctcgag 289

```

<210> 512

<211> 577

<212> DNA

<213> Homo sapiens

<400> 512

```

gtttcccaaa gtcattagttc agcagacggg gagtttgccc agtttttctt gccttgactt 60
ttttctctct gttcagcaaa tttcactgga tttccagctg ctgtgtcata atccctaggt 120
acagctgttc tgtctctgcc aaagctgttg cttgcagggc tcccatttga gctgccatag 180
ctatctgagt tactggcatt cctgatgcca acagggcagc aacattgaga acaaaatctc 240
tagtaactgg agctatttct tgtttttgtt ttccaatgat ttcttttctt tttaaaaaat 300

```

```

tttttcccaa caccatcccc aactatttct ttttcttgct gttcttgtaa tttctttgcc 360
tagtccatcc tcccagctaa agcttcttat gcatcctttg ctgtgcctct gcctctgaag 420
agagatgaac tggaaaatctg gcttaaaactt ctgctaaatc ttagttttctc aatgctcttc 480
tttctctctt gtctcttgct tctgtacta cttctgcttc tttcttatgc atgtcatatt 540
tatttattta cttatttttc acacgcaaac actcgag 577

```

<210> 513
 <211> 353
 <212> DNA
 <213> Homo sapiens

```

<400> 513
gtcgaggcgc tctgcgtcat tctccagtga atctgagagg ggctaatacc aaggtcacgc 60
tattcccagg aacttcttagc ccagctggga ataaccatca actaccata tctaattctt 120
ggttaacaaa taccttccac agtcttcatt agcaaatgtc cttcttgctc gctgcaagga 180
gagccaacat tctcattaag tctctgttct tctgtttaac tgtttacatg actgtccttc 240
agcacgtaca cggttcagcc tcagctacag accatcactg ctacagagcg acaacttccc 300
attcggactt aggcagtgtt tcagttcatt acagagaagt ggttttcttc gag 353

```

<210> 514
 <211> 180
 <212> DNA
 <213> Homo sapiens

```

<400> 514
gaattcggcc ttcattggcct agtctttctg gaaatgagtg tcctcaactg cttgtctaaa 60
aaattaacat tagctttctc ctttttcttc ctttttgaga tagggctctg ctctgttgcc 120
caggctggag tgcagtggca cgatcctggc tcgctgcaac ctccacctcc cagactcgag 180

```

<210> 515
 <211> 308
 <212> DNA
 <213> Homo sapiens

```

<400> 515
gcgattgaat tctagacctg cctcgagtct tgaccagcta cgtattccac tgaccagcct 60
catcatctct gccctcaaca gtggaaatga tctctttccc acagatgttc tccctccctc 120
cttcttctcc ttccctcttc tacaaaagtg aactcttaag tctttactct ctggctctca 180
gaagggtttg gttacaagca gtcttcccat ttaatttggt gctctgcctt ttaaaattgt 240
tttttgtctt ttgttggtca gagaacgacc agagtatttt ctccccagtg tgtcccagca 300
gactcgag 308

```

<210> 516
 <211> 305
 <212> DNA
 <213> Homo sapiens

```

<400> 516
gaattcggcc aaagaggcct agtcgttaat aaatcacatc ctagtctttc agcgtttccg 60
taagcagacg acatcttcag ttttctagct cttgtagttt caacactgca acatcaatga 120
tgcataatgt cagaatcagt tacaaagacc atccgattct ttttctctta gttcatctat 180
ttttcactgt ctcttggttc caagtgtatc tgagtgatta cttcttggtc ttctctgcta 240
ttgctcgttg ggggtgctctc gattgtcccc gtgttttggt ggctgggttg gagagggcgc 300
tcgag 305

```

<210> 517
 <211> 287
 <212> DNA
 <213> Homo sapiens

<400> 517

```

gaattcggcc aaagaggcct acgtcaaate tctcggcaag gtcttgccga ttctgtgtga 60
tgcacccact tcggacgctc ctgaggtcgt cagaaatgag gaagttgttg gctgtgtcgg 120
catccaaggt cgtatccact gtgaaaagga aaaaaagttg atcagaaaat ggacagaagc 180
caaccccatg cctctcctct acttcaaagg cccaaatata tcttgacttt ggtttcttta 240
attctcttct tcccccaaaa tcaaaacttt tcatgaggct actcgag 287

```

<210> 518

<211> 390

<212> DNA

<213> Homo sapiens

<400> 518

```

gaattgccaa cagaggccta gctgatgttt gctgtgaccc acatgttcta cgcctccgcc 60
tttggcatgc agccactggc tcttcggaca ggtctgttga tcgcatcgct gtcgggcctg 120
tgctatgccc tcctctaccc atgcctctca ggtgccttca cctacctggt gggggcttat 180
gtggccctta tcggcttcat gggctggcga gctatggcag ggctgcggct ggccggggca 240
gactggcgct ggacagagct ggcagctggc agtgggtcac tcttctttat catctcagac 300
ctgaccatcg cctcaacaa attctgtttt cctgtgccct actctcgggc gcttatcatg 360
tccacctact atgtgaccca gatgctcgag 390

```

<210> 519

<211> 376

<212> DNA

<213> Homo sapiens

<400> 519

```

gaattcggcc ttcattggcct actcagtata tatggaggca gaagcaacag ctctgtcttc 60
tgacacatct ttgaaaggct agcctgaggc acctgcacaa ctctggatg cagaaggctc 120
tatcaaaata ggctctgaaa aatctctgca ccttgaagtg gagatcactt caatagtctc 180
tgacaatact gggcaggagg agtctgggga aaactctgta ccccaggaga tggagggcaa 240
acctgtgctc tctgggggag ctgcagaagc agtgcactca ggtacatctg taaagtcata 300
tagtggtccc ttcctctctg ctccagaagg ccttactgca ccagaaattg aaccagaagg 360
ggaaggccaa ctcgag 376

```

<210> 520

<211> 334

<212> DNA

<213> Homo sapiens

<400> 520

```

gaattcggcc ttcattggcct acaccgtgt aaccgtgacc ccgagcaaac ttcctcacc 60
taggagattc ccttgtgccc ctccccgcc aatgtccctt agcccagaag taaccaccgt 120
tctcacctcc atcatcagag atcagttttg ctggcctaga atttcaccca aatgtcgtca 180
tacatgtgtt ttcttctgtg tgtggcctcc ttcatcaat acaatgtttt ttatttttgt 240
atattttttg agacagggtc ttgctctgtt ctcttccgt agtgagtggt ggcgcatca 300
cggctcgtg cagcctccaa ctccggggt cgag 334

```

<210> 521

<211> 508

<212> DNA

<213> Homo sapiens

<400> 521

```

gaattcggcc ttcattggcct atggacaagg aagcattcag agcatggtgt catctgactc 60
cacatcacca gattcttctt taacagaaga atcacgttct gagacagcca gtagtttata 120
ccagaagatt tgtaatgggg gattatctcc tggtaaccca ggagattcta aggacatgaa 180
ggaaattgag cccaattatg aaagtccctc tagtaataat caggataaag attcatcaca 240
ggcttccaaa agctcaataa aagttccaga gaccacaaa gcagtccttg ctctccgatt 300
agaagagaaa gatggcaaga ttgctgtaca aactgagaag gaagaaagta aagcctctac 360

```

agatgttgct gggcaagcag taaccataaa ccttgtcccc acagaagagc aagcaaaacc 420
 ttaccgagtt gtgaacctgg aacagccatt gtgcaagcca tatactgtcg tggatgtgtc 480
 agcagccatg gccagtggag acctcgag 508

<210> 522
 <211> 412
 <212> DNA
 <213> Homo sapiens

<400> 522
 gaattcggcc ttcattggcct acaagaagaa gaagcagctg aagccgtggt gctggtattg 60
 taatagagat tttgatgatg agaagatcct tattcagcac caaaaagcaa agcattttaa 120
 atgccatata tgtcacaaaga aattgtatatac aggacctggc ttagctattc attgcatgca 180
 ggtacataaa gaaacaatag atgccgtacc aaatgcaata cctggaagaa cagacataga 240
 gttggaaata tatggtatgg aagggtattcc agaaaaagac atggatgaaa gacgacgact 300
 tcttgaacag aaaacacaag aaagtcaaaa aaagaagcaa caagatgatt ctgatgaata 360
 tgatgatgac gactctgcag cctcaacttc atttcagcca cagccactcg ag 412

<210> 523
 <211> 337
 <212> DNA
 <213> Homo sapiens

<400> 523
 gaattcggcc ttcattggcct aattgcacct tcatcagtc atccctgaag aattaggagc 60
 tcattttgaa agcaactaac ttctcaggtt tttcttatct ttcattcatct ggataaattc 120
 cctatcacat gagatcatgt tctaggaatt ccggactgta ccaactccaa gaaaaccacc 180
 atctatttta aatacttttt tgtttgtttg ttttgtttga gatggaatct tgctcgggtc 240
 cctaggctgg agtgaagtga cgcgatctca gctcactgca accttctcct cctgggttca 300
 agtgattctc ctgtctcagc ctcccaagta gctcgag 337

<210> 524
 <211> 441
 <212> DNA
 <213> Homo sapiens

<400> 524
 gaattcggcc ttcattggcct aggggtcatg aacattcaga cttttccatc ctggctggca 60
 ccatgcacag cagaagaaag aaaatctggc ttcccttgtt cagtgaagaa cagagagaaa 120
 gagaagaatg gatggcaggg tggggggtgg ggaggaaagg aggaagggat cactttaatt 180
 acaagcacac cctttttggg gtacataagc agaatactg tgaagaaacc ctcacccaaa 240
 taagccactt tgtttttaac acacacacac aaattcaa ataccctaat atctatcagt 300
 gagggctctag ggtgtttggc gagggccct tctcttgatc tttggcatat acctgagtgt 360
 tgggcagagt gctgacacta cctactgctg tgtgatcatc ttccgtgaca gatgggggga 420
 aaaaaacaga aggcctctcg g 441

<210> 525
 <211> 342
 <212> DNA
 <213> Homo sapiens

<400> 525
 gaattcggcc ttcattggcct accctctcca catcaacaca tacagcacca tccgaaccat 60
 cagcatcaga cgttaacaca tcaggcaccc ccacccccac aacaggtatc ctgtaattct 120
 ggtaagtttt tgtctcctgg tttgtgtttg gctaactgtg aattaggatc tgcctttgt 180
 tatttagagc tcatgtagta ttactacca aaacctcttt acatctcttt ccttgctata 240
 atcctatagt tgtaactcat ttaattcata gactgacctg gcgactttct tgattaaaat 300
 ttattgtggc aacataggca aacccaacaa ccccttctcg ag 342

<210> 526

<211> 475
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (331)

<220>
 <221> unsure
 <222> (367)

<220>
 <221> unsure
 <222> (376)

<220>
 <221> unsure
 <222> (402)

<220>
 <221> unsure
 <222> (406)

<400> 526
 gaattcggcc ttcattggcct agcaattccc ctacatcaaa tgctcaagcc cccagctgga 60
 agttaagaga aagtcacctg cccaagaaac accgagttag gcacagaata ggttctgttag 120
 gttctgtccc acctaatat agctctcatt catggagaga ctgcttgtac cttaccaagt 180
 cctgtgtttg gccattatc gctttatacc atcatggcct taatacactc ctagtagggg 240
 aggggtttgt agtcccatgt tgcagagaca aaaactgagg cttggagaga gtgactggat 300
 tgtgtgatgg tcatatagga agtaagtggc ntgactggga tatgacatag gagaattgtt 360
 cttttntttt ttctcnacac tctctgttgt gtgcaggggc tnattnagat aaagataggg 420
 aattggggct aggtgggggtg gctcacacct ataatcccag cactttaagc tcgag 475

<210> 527
 <211> 437
 <212> DNA
 <213> Homo sapiens

<400> 527
 gaattcggcc ttcattggcct agacgaagag gaggagaaaa accagctgga gattgagaga 60
 ctggaggagc agttgtctat caacgtctat gactacaact gccatgtgga cttgatcaga 120
 ctgctcaggc tggaaaggag cttaccaagg tgaggatggc ccgccagaag atgagtgaag 180
 tctttccctt gactgaagag ctctggctgg agtggctgca tgacgagatc agcatggccc 240
 aggatggcct ggacagagag cactgtgtatg acctctttga gaaagctgtg aaggattaca 300
 tttgtcctaa catttggtcga gagtatggc agtactcagt tgggtgggatt ggtcagaaag 360
 gtggccttga gaaagtctgc tccgtgtttg aaagggtctc ctgctctgtt gggttacata 420
 tgaccaacag actcgag 437

<210> 528
 <211> 401
 <212> DNA
 <213> Homo sapiens

<400> 528
 gtttattgta gtttttgatt tctgtaaaat aagagaaact tttgtattta ttattgaata 60
 agtgaatgaa gctattttta aataaagtta gaagaaagcc aatgcccggt gcctgggcct 120
 ttgtgcagaa gacctcggcc ctctgtggc tgctgtctct aggcacctcc ctgtcccctg 180
 cgtggggaca ggccaagatt cctctggaaa cagtgaagct atgggctgac accttcggcg 240
 gggacctgta taactactgt accaaatact caggctctct cttgctgcag aagaagtaca 300

aggatgtgga gtccagtcctg aagatcgagg aggtggatgg cttggagctg gtgaggaagt 360
tctcagagga catggagaac atgctgctag gaagactcga g 401

<210> 529
<211> 204
<212> DNA
<213> Homo sapiens

<400> 529
gaattcggcc ttcattggcct agaggggttct agggagaaag ccaccctgag cacacatgtc 60
tgggcacagt gggggctggg ggctggagct caggcaggat ggactaggct tgtggaggag 120
cgggtgggca ttagcatgtg aggacatgct gggagggtc aggaggtggc acagacattg 180
ccaaggccac tgcagggcct cgag 204

<210> 530
<211> 592
<212> DNA
<213> Homo sapiens

<400> 530
gaattcggcc ttcattggcct aagtaaaccat tttatataca gcagtgatct ttataaggcc 60
tcaaatattt aagccagcct tatgagccat tcatttatat gaaatataaa attttattta 120
ttttgagatg gagtcttgct ctgttgccca ggctggagtg cagtgggtgtg atctcagctc 180
actgcaacct ccacctcccg ggttcaaacg attctcctgc ctgagcctcc caagcagctg 240
ggattacagg catgcaccac catgcccagc taattttttt tgtattttta gtagagacgc 300
aggtttctact gtgttggtca ggctgggtctt gaactcgtga cctcaaatga ttcacctgcc 360
tcagcctccc acaagtgtct ggattacagg catgaaccac tgcacccggc cacattttat 420
atttttaata taaaggcaga aaatcataat gtttcaaatt attttgttac ctaggatatct 480
actcttataa atcaagagtgt ggtcttttaa aaaatatttt tgtaagatat tgaaggcctt 540
tatatatata ttattctatc caattagcat gcatattcct gttttactcg ag 592

<210> 531
<211> 347
<212> DNA
<213> Homo sapiens

<400> 531
gcatattgaat tctagacctg cctccttcgc cactagaccc ccagggcctg gtatgtggtg 60
atcgctcagg gccatttttc ttccttttct cctcctccaa ggggtgggaa agagcatcag 120
aaggtctagg tggccccagg cccaaacaat gctcctttaa aaggaaacta gattgttaca 180
aaggtcagag gctgaaaagt tatttccgcc ttttatccct cttaaattctt cacttcctga 240
aaaaacaaac aaacaaaaaa gccactgagg gcccttggac taaatccagg cctgagttgc 300
tgggcagagg tcagtcttgt ccagacatgg gaaaaaata actcgag 347

<210> 532
<211> 368
<212> DNA
<213> Homo sapiens

<400> 532
gaattcggcc ttcattggcct aacggtaacg gcggaggcgg aggcggcgga ggtaagaagg 60
attccattac gtaccgggaa gttttggaga gcggactggc gcgctcccg gagctgggga 120
cgctcgattc cagcctccag gacatcacgg agggcgcgga ccactgcccg gtgcatttgt 180
tcaaggacca cgtagacaat gacaaggaga aactgaaaga attcggcacc gcgagagtgg 240
cagaagggat ttatgaatgc aaagagaagc gcgaggacgt gaagtcggag gacgaggacg 300
ggcagaccaa gctgaaacag aggcgcagcc gcaccaactt cacgctggag cagctgaacg 360
agctcgag 368

<210> 533
<211> 315

<212> DNA

<213> Homo sapiens

<400> 533

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gaattcggcc ttcattggcct actcccagct aatggagcag cctcccattt aacagggttg 60
tccatcagcc agctccggct ggctgaggca acccagcact gaaggggtta aggccagcca 120
gcatgtgtgg ctgttaataa ttgctaccca ccaggacact ggtgagtatt aaaggaaaac 180
cttctcccta ctccctcagt tgaaaggagt cagggtctaga ggccagcagag ggaacagcaa 240
agaagagccc ccacaatgaa agacggaaca catttctaca cccagtgtact ggccagggtcc 300
cagaggatac tcgag                                     315

```

<210> 534

<211> 486

<212> DNA

<213> Homo sapiens

<400> 534

```

ggcgggtgagc cgagatcgcg ccaactgcact ttagcctggg cgacagagca agactctgtc 60
tcaaaaaaaaa aaaaaaaaaa aagaatagta aatcaaatac aggtacagtc ccttagaata 120
gggtccccaac ccccccgttt gtagtctgtt aggcattggg ttgcacagct ggtgagcaag 180
cattactgcc tgagccccgc ctccctgtcag atcagcgggt gctctagact ctcacaggaa 240
cgtgaaccct attgtgaact gcacgtgcga gagatctagg ttgtacactc cttatgaaaa 300
tctaaggcac tgcccactcc catccatgga aaaattatct tctacgaaac cagtttttgg 360
tgccaaaaag gttgaggact gctgccttgg aatatgaagc aaactttggg tgggtctgtt 420
agacaagact cccagatgac ttggaaatgg catgctgtca gctttttttg tcttattgcc 480
gagccc                                           486

```

<210> 535

<211> 305

<212> DNA

<213> Homo sapiens

<400> 535

```

gaattcggcc ttcattggcct agggaaatga cccaaaggaa aggtttccta tgctgggttg 60
gaagaagtgt acttgccact gagcagtatg tcaggaaaga aggaatatta tctaggttta 120
gctttgataa gtgctattag taatgaatat ataacatggg aaccaatgtt atctttaatg 180
ttgcttgttc tgggtgaacag agaattctaa gagctgttag aaagtagcac ttgatgcaag 240
ggatgttttg aaaagaaaaa attggtaatg cgaatgtata gaaagtaaag gaaggtatgc 300
tcgag                                           305

```

<210> 536

<211> 352

<212> DNA

<213> Homo sapiens

<400> 536

```

gaattcggcc ttcattggcct aagccagagt ttcccacgcc tcctgttcct agcagcccaa 60
gtgccttcgc tgggctactc ccacctggcc cttgcttttc attccttagg gcagtcactt 120
agcaccttcc aaagtgcctg cacatgtttc ttatttcatt tcttaaacat tcatattacc 180
actatttaga ttgaaggaaac agaattgggt tgggcttgaa gagaatacaa agagatctgt 240
cttcaattat ctgatagtag taaagtttca cgggagaaaag aaagatttcg gttccacata 300
aggaaaaact tggaaagttt tgaatggaaa gttcatagag agctgcctcg ag 352

```

<210> 537

<211> 387

<212> DNA

<213> Homo sapiens

<400> 537

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gaattcggcc ttcattggcct agaaagcatc ttactaacyg tgtgcctcag tttccttatg 60

```

```

tgtaagggtgg gggtaatagc agttcccatc ccatgggctg tcatgaggac tggatgaggt 120
ggcacatgga cccacacctg catggagtgt gggagccaca ccctaactcc ccaccccaga 180
gccttctcaa gtatttttgg ctcttgtttg ctcccttctg gcaactggagg agcatgaacc 240
ttcctgatct gtgcgccctg ccttgGCCa gagctgggtt aaataaatgc ttaaccacgc 300
tcatctttcca gaacctgaa gcggggatga gtacttcctt tccttagatg aggacactga 360
ggccagagggt tgagtaacca gctcgag 387

```

<210> 538

<211> 529

<212> DNA

<213> Homo sapiens

<400> 538

```

gaattcggcc ttcatggcct agagaattcc tgtcattcct ggcctcagtt ctgcagggac 60
cgagggcgag acacgcctgg gccaggtgt ggcgtctctg tccccatctg gttttaggta 120
acaagcggag cttctgaact tctcggctct cggcagcggc tgtatttcct ctggcctggg 180
tggtcttttc ccgcctctgg ttgcttttct gcctttctag tttttgggtt accagataga 240
aggcttggcc tcagttttgg cctcgccttt ttgctctttc taacgagcac gaaggggcca 300
tagggacgcg gaggacacct ttattcttgg ctggttctag catgctgctt catgtccctt 360
ggagcagcgt gcccttctga aaaccgggtg ctaaatgtct cttctgttta tatcaggcgt 420
gttacacctt cacacgcact agggatccag gtaagcccag cggcccgaac gtcattactg 480
actggtgaca ctgcagtaag taaacctttt ttgccaaaca cttctcgag 529

```

<210> 539

<211> 500

<212> DNA

<213> Homo sapiens

<400> 539

```

gaattcggcc ttcatggcct acgatcataa agaaaaatca actgaaataa atcatgaaat 60
tcctcactgt gtgaataaac taccaaagca agaggattct aagagaaaat atgaagattt 120
atcaggggaa gagaacatt tggaagtcca aatactgtg gagaatactg gaagacaaaa 180
agacaaaaaa gaagaccaag aaaagaaaaa catttttgtg aaagaagagc aagaactacc 240
accaaaaata attgaagtta ttcatcctga aagagaaaag aatcaagaag atgttctagt 300
aagagaaaag tttaaaagaa gcatgcagag aaatgggtgt gatgacacac ttggcaagg 360
cactgctccc tacacgaaag gccccctcag acaagaaga cattactcat tcacagaagc 420
aactgaaaac ctgcatcatg ggcttcctgc ttcagggggg ccagccaatg ccggcaacat 480
gaggtacagt catactcgag 500

```

<210> 540

<211> 374

<212> DNA

<213> Homo sapiens

<400> 540

```

gaattcggcc ttcatggcct ataggccatg aaggccggga agtttatagg ctataccaat 60
aaacatctga aaagatgctc aatttcggaa ataataaaga aataaagaga aaatcaagaa 120
aactttttcc ctaaaagatt gaaaataaga caatcgaggc tgactagggt ggagcaggtg 180
ctgccctacg tgccagccag ggggtgatgg tgccagccca ccgagcactg gcgggtggta 240
atgggtgggtg accagcagct ggagatgctc cttcgaggga gcagtcgggc agtcacaggg 300
ctgaaaagta cctcaagccc tcacacaggg accccaagtc ttgggggagc gggtagagt 360
acagatgact cgag 374

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<210> 541

<211> 357

<212> DNA

<213> Homo sapiens

<400> 541

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gaattcggcc ttcatggcct acaccttttg ccgtcccac actgcgccac cctgcacctg 60

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gcaccactca gcacctcttc ctggccctac cegtccgcca tggaatccag ccactgagaa 120
aggcaccatt gaaacagaca taatcatggg tcagaagatg tgactcagcc tctactcaaa 180
tctgtttgtc aaacaaaaag gtgcttcgtg ttttaagtcaa actatcccta atgcattttc 240
cattctcttc aaaaaccaca gccatcagtt ttaaaaaaag acagaaaaca tgaagcacac 300
ttctcttgcc tggcttacca ttttctttga tccattaaaa tccaagagta cctcgag 357

```

<210> 542

<211> 557

<212> DNA

<213> Homo sapiens

<400> 542

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gaattcggcc ttcattggcct agcctatctc agtactatct ctaaagacct gattacatat 60
atgagtggga ccaaaagtac cgagttcaac aacaccgtct cttgtagcaa tcggccacat 120
tgccttactg aaatccagag cctaaccttc aatcccaccg ccggctgcgc gtcgctcgcc 180
aaagaaatgt tcgccatgaa aactaaggct gccttagcta tctggtgccc aggctattcg 240
gaaactcaga taaatgttac tcaggcaatg aagaagagga gaaaaaggaa agtcacaacc 300
aataaatgtc tggacaagt gtcacaatta caaggattgt ggcgtcgctt caatcgacct 360
ttactgaaac aacagtaaac catctttatt atggtcatat ttcacagcac caaaataaat 420
catctttatt aagtagatga aacattaact ctaactgtga caaagaagac caaaaatagt 480
tatcttttaa ttacagaaga gtttcttaac ttacttttgt aagtttttat tgtgtaagtt 540
tataatgcag gctcgag 557

```

<210> 543

<211> 406

<212> DNA

<213> Homo sapiens

<400> 543

```

gaattcggcc ttcattggcct agtggccttt cagggagctg aggggaagcaa gattctaaga 60
ataattttta actattagta ttgatggcct gtggacctga gcactttaca cgactactcc 120
caatccttag gactcggagg caggcgctgt tcacatcccc cagtttacag ggggagaaac 180
tgaggcccag agaggttaag cagcttgccc agggccacac agctagcgag aagtggagcc 240
aggatctggt cccatccact gcaatccaaa gtctgtgcta tgagccgccc tctgtctgtg 300
tctgtctgct cttgtttgaa agtaggcgtc cccttcacgg gccaattgac cgtgcaactc 360
tttgggtgag gcatggggga ataaacagaa taaaagggtg ctcgag 406

```

<210> 544

<211> 400

<212> DNA

<213> Homo sapiens

<400> 544

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gaattcggcc ttcattggcct aatgggaaca gaaaaatggc taagtaatat aaggcaagga 60
attctaaaca acagttagat gagctagatc tctgagtaac accctgggca gaatctaaga 120
gctgaccttc acattcacta tctttaaaac taaaaagcta ctccagctac aactgacttg 180
aacaactcag aggattttac aaagttacct ctggacattt caaacgacct cttaactctg 240
gtggctcacc ctcaagcgcc tgagataatg acattgcatg aatgaggcca tgaggaaaac 300
cccacctatc tttcagtcct gtttttgaga agcacgaaca catacaatca cagtgcgcgc 360
acactctcag tagcagtgtg gctgagtgtc ctgcctcgag 400

```

<210> 545

<211> 306

<212> DNA

<213> Homo sapiens

<400> 545

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gaattcggct tcatggccta cagcgtgac ccggaagggtc ttcccggcac actccagagc 60
ggatgtgagg ggcgccgatg gcggagggaa cggcggaggc tctcttagag aatgggtggtg 120
gtggcgactc gggagccgga gctttggaac gaggagtggtc gccattaag cgtcaatacc 180

```

tcaccaccaa ggagcagttt caccaattcc tggagccaa agggcaggag aagacttgcc 240
 gggaaaccga ggtaggagac cctgctggca atgagctggc tgagcctgag gccaaagcga 300
 ctcgag 306

<210> 546
 <211> 288
 <212> DNA
 <213> Homo sapiens

<400> 546
 gctcgagtgg tccaggcact ggggtacatg aagaggcctt tgagatattt tctgttggct 60
 tttctgggta tatcatcctc agctgggcgc tttcctgcag cccttggttc actttctggc 120
 tctccctcac tctctggctc tctttcactg tctggctctc ctccaccctc tgcccttccc 180
 cctctctctg gctttccctc tgtctttgat cctccctgca tctctgactt tcccttctc 240
 tcttttatca gggttggggg tcacagtctt tgtctagacc tgctcgag 288

<210> 547
 <211> 303
 <212> DNA
 <213> Homo sapiens

<400> 547
 gctttgatga ggaccctcc atcttctccc ctggcagtgt ctactttgag aagggccagg 60
 atgctgggct ctgcagcatc aatcctgtgg cctgcctccc cgacctggca gcctgtgtcc 120
 cggacttacc ccctttctct taccacggct tctagtcctg aggggtgtggc gggcggcgtg 180
 gttaggcaca tgtacttttc cctgtttcta ctttctattc tccgtgtttt tatcacacct 240
 gctcccaga ttcccacccc ctcaatgttc ctctcacacg aaaccccat cagtaccctc 300
 gag 303

<210> 548
 <211> 370
 <212> DNA
 <213> Homo sapiens

<400> 548
 gaattcggcc ttcattggcct acttgctgac aacatcttaa ttcttactta ggtatattgg 60
 atccttttat attagtgttt cttggtttct ctttgccac acttgaatat tttccagaag 120
 atctgctaaa ggcaattttt aacatcaaat tcttagctag attggattct caacttgaaa 180
 ttttatctcc atctcgaagt gcaagagtcc agtttcatct tatggagtta aatagatcag 240
 tctgcttggg atgcccctgag tttcagattc catggtttca tgaccgcttc tgtcaacaat 300
 ataataaagg tattgttggc atggatggaa cacaacagca gatttttaaa atgttagcag 360
 agatctcgag 370

<210> 549
 <211> 353
 <212> DNA
 <213> Mus musculus

<400> 549
 gaattcggcc aaagaggcct agcagagctt tcatatccac gatgcgtttt ctggccgcca 60
 cgatctctgt gctggcgtg gtcgctgcca gccaggcggg gccctgcac ttcaaggact 120
 gcggctctaa ggtgggagtt ataaaggagg tgaatgtgag cccatgtccc accgatccct 180
 gtcagctgca caaaggccag tcctacagtg tcaacatcac ctttaccagc ggcactcagt 240
 cccagaacag cacggccttg gtccacggca tcctggaagg gatccgggtc cccttcccta 300
 ttcttgagcc tgacggttgt aagagtggaa tcaactgccc ccccagggtc gag 353

<210> 550
 <211> 295
 <212> DNA
 <213> Mus musculus

<400> 550
 gaattcggcc aaagaggcct aaacgttaaa gcaagagaaa cgatatctgc aggacatctg 60
 gtcctaaact ggaacagaga cgcttggaaat ttgtttttgt ttttgtttgt ttgtttgttt 120
 tttcttgaag tgccaaaggc caattttaca gaagatgagt ttaaaaatgt ttggacattt 180
 cttggagggtg gctgtgtgtgg gaacggcttg cttacaggta cagcaggta aaccgcctga 240
 cagtcctaca ggttgtatcc cactccttac ctgtggcccc acccagcaag tcgag 295

<210> 551
 <211> 249
 <212> DNA
 <213> Mus musculus

<400> 551
 gaattcggcc aaagaggcct agtggcaagg aaagtctcac ttgggtgttc catcagtggg 60
 acaactaact caaggatttt tgcaacattg cagataacca tgaaatcatt ttgcgtacta 120
 cacttagtgg tgaggtagcg ctgcatagtc atggcatgtt taaccatgag ttgggtcttt 180
 attttgctga ataagaacaa agtgggtata caagctacca atcttccaga atttacacca 240
 acggctcgag 249

<210> 552
 <211> 341
 <212> DNA
 <213> Mus musculus

<400> 552
 gaattcggcc aaagaggcct aagaagaaca aaggacccaa gaaaatgccc aaatccaaaa 60
 aaaagaagcc tttaaaaaag aaaccacaaa ctgtaccctt acctcaggca aagcagcaga 120
 agcaaaaagc agcaaatgga gttgttggga gtgaagctgc aataaaggag gaagaagacg 180
 acatttctga caagggcagt gattctgaag aggaagaaac caatagagat tctcagagtg 240
 agaaagaaga tggtagtgac agggagtctg atagagagca agatgagaaa caaagcaaa 300
 atgatgaagc agagtggcaa gaggttacaac agagagtcga g 341

<210> 553
 <211> 580
 <212> DNA
 <213> Mus musculus

<400> 553
 gaattcggcc aaagaggcct agaaccacaa gactatgaat gaaaaggctt ggaaacgctg 60
 gtgtacacag atcctctctg ccctaagcta cctgcactcc tgtgaccctc ccatcatcca 120
 tgggaacctg acctgtgaca ccattctcat ccagcacaac ggactcatca agattggctc 180
 tgtggctcct gacactatca acaatcacgt gaagacttgc cgggaagaac agaagaacct 240
 acactttttt gcaccagagt atggagaagt cacaacagtg acaacagcag tggacatcta 300
 ctcccttggc atgtgtgcac tggagatggc agtgctggag attcagggca atggcgagtc 360
 ctcatatgtg ccacaggaag ccatacagcag tgccatccag ctactagaag actcattaca 420
 gagggagttt attcaaaagt gcctgcagtc tgagcctgct cggagacca cagccagaga 480
 acttctgttc caccagcac tgtttgaagt gccctcactc aagcttcttg ctgctcactg 540
 tatcgtgggg caccaacaca tgatcccaga gaacgtcgag 580

<210> 554
 <211> 372
 <212> DNA
 <213> Mus musculus

<400> 554
 gaattcggcc aaagaggcct acagatagct ccaagttaca taggcggccc agcaaactca 60
 gtccattagt gctgtgaaaa gaagtccctt actccttgga ttcaccggtc agagcaaaaa 120
 acgcagttac cactgaagta aagccgaaca aacttctaca ctgatctcag agagcaaggg 180
 caaggacgca cgttcacgga ctgcgttttt tcaacagaca acaaagacac tgtggtagaa 240
 tttcatttca aaatgaaggc ttttgtttgg accctaagtg tactactctt cctactgggc 300

agtgggtcatt gcaaaggagg acaactcaaa ataaaaaaaa taaccctaaag gagatatccc 360
cgtggagtcg ag 372

<210> 555
<211> 302
<212> DNA
<213> Mus musculus

<400> 555
gaattcggcc aaagaggcct aggctgagga actgctgtgg agaaaggat actatgaagt 60
tatccaactt atcaagacta acaaaaagca catccacagt cggagcacct tggaatgtgc 120
ctacaggact catctggctg ctggcattgg cttctaccag catctccttc tctatatcca 180
gtcccaactac cagctggaac tacagtgtg catcgactgg actcacgtca ccgatcccct 240
catgggattc aagaagccag tatctgtctc aggaaaggag atggattggg caaacctgctg 300
ag 302

<210> 556
<211> 284
<212> DNA
<213> Mus musculus

<400> 556
gaattcggcc aaagaggcct agtgggaactc atttttgttg ttgttgttga agataaggca 60
atttaaactt ttttttaaaa aaaaactttt tctgcttctg tggaactcat ttttgttgtt 120
gttgttgttg tttccaaaaa gtatatgtgc tgtataggtg ctttctgttg agcctgcaga 180
gtgtgagtgt aggtggtact ctctttggtg gacagcgtag ttgggaacac ctttgggtaca 240
tacaaaactg gtgtggcgat gctctgacta gcacagctgt cgag 284

<210> 557
<211> 665
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (605)

<400> 557
gaattcggcc aaagaggcct agcccagctc tgcacccaat catgaagctc cggaaagctt 60
ggctgttgtt cctgctcttg gcgctgacac agctgctggc tgetgctgag gccggagatg 120
cacaggaaga tacttcagat acagaaaatg ccaactgagga ggaagaggaa gaggatgacg 180
atgacttgga agttaaggaa gaaaatggtg tttgggtctt aaatgatggg aactttgata 240
actttgtggc tgacaaagat acagtgtctc tggagtctta tgcaccatgg tgtggacact 300
gcaagcagtt tgcctccagaa tatgagaaaa ttgccagtac tttgaaggat aatgatcctc 360
ccattgctgt agcgaagatc gatgcaacct cagcatccat gctagccagc aaatttgatg 420
tgagtggcta cccaccatc aagatcctga agaagggaca ggccgttgac tatgatggct 480
ccaggaccac ggaagaaatt gttgccaaag tcagagaagt tccccagcct gattggacac 540
ctccacctga agtcactctt tcattgacta aagataactt tgacgatgat gtcgactgtg 600
tctanacaaa ggggtggtggg acgtcaggaa gagctcccca tggattcatg tgcaccatc 660
tgagag 665

<210> 558
<211> 536
<212> DNA
<213> Mus musculus

<400> 558
gaattcgaaa gaggcctagg gagggcggag gaagcggact gttccggagc tctgcctagc 60
cgggccaac ctttgtctca gagatcatgg ctgtcgagga tgtgggtggc actggcgccg 120
acccgagcga gctagagggc ggcgggctgc tgcacgagat tttcacgtct cctctcaacc 180

```

tgctcctcct gggcctctgc atcttcctgc tctacaagat cgttcgcggg gaccagcccg 240
gtgccagtg gacacaacgac gacgacgaac caccgccgct gccccgcctc aagcgggcgcg 300
acttcacccc tgccgagctg agggcgtttc atggcggtcca ggaccgcgcg attctcatgg 360
ccatcaacgg caaggtgttc gacgtgacca aaggccgcaa gttctacggg cctgaggggc 420
catatggggg ctttgcggga agagatgcat ccaggggcct tgccacattt tgcttgga 480
aagaagcact gaaggatgag tatgacgacc tttctgacct caccgccata gtcgag 536

```

<210> 559

<211> 229

<212> DNA

<213> Mus musculus

<400> 559

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gaattcggcc aaagaggcct aggagacttc tatacattct ttcttgtaa gaagattact 60
tgttcaagat attccataaa aagcaactgg aataaacttc acgtaacaga gactaagacg 120
gtgggtactg atgatcgtaa ccgcctgggc agttggcgtc ttactagttt atgggtgtgaa 180
gacatgccag attgaaaact caaaacaaaa cacgggcaca actgtcgag 229

```

<210> 560

<211> 277

<212> DNA

<213> Mus musculus

<400> 560

```

gaattcggcc aaagaggcct atccagagtg attttctcta gctacagtct gtgcgcccct 60
tcaatccttc tttagtcgtt tagcttttgc gatgttttct tgccattttt gtttcttctt 120
ttgtcctctc tctctggctt caatcatctt ggccaacttc caggacagta cagcactagc 180
taggaacagt ggtgtgagcg ccaagataac tgtggttaagg aagccatatt ggtcctttgc 240
agcccaactcc acaacatact cagcccaagc tgtcgag 277

```

<210> 561

<211> 308

<212> DNA

<213> Mus musculus

<400> 561

```

gaattcggcc aaagaggcct aagcgctaag cctggagtgt gggcactgca gtttcagagg 60
caccgattat gagaatgtgc agctccacat gggctccatt catcctgagt tctgtgatga 120
tatggatgcc gggggcctgg gcaagctcat cttttaccag aagagtgcaa agctcttcca 180
ttgccataag tgcttcttca ccagcaagct gtacgccaat gtgtactatc acatcacggc 240
cagacacgca gcctcggaca agtggagtga gcagccgaaa gagcagccga gcaaagacac 300
ccgtcgag 308

```

<210> 562

<211> 558

<212> DNA

<213> Mus musculus

<220>

<221> unsure

<222> (23)

<220>

<221> unsure

<222> (26)

<400> 562

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gaattcggcc aaagaggcct agnagnagat ttactggaaa ttaagaactt gctgctgtta 60
aataaaactt tgtatatgtg cagcctgcag gagataacat tttagtcaaa aaaaaaaaaa 120
aaaagaaaaa aaagaaaaag aaaagaaaaa gaaagaaacc attttgacag caagcacctt 180

```

```

ctgtgaagtt ctaaaaaggg aaaggatctg cgtgtgtctg gtcatttaaa cacatattca 240
gttctgtgta ctctagagtt tgacggtctg tatatttttc aggcagccaa gccaaagtat 300
tgatcattt ggggtgtagaa actgtgtttt cctgtgtata tgtgatcaat atccaaggg 360
ctaaaagtta gcttgcttgt attggaattt aaaacaacaa caacaaaaag aaatatgtca 420
ctgtgttttc aatttgtatt ttcacaactg ctcccttttc tatggctcct gggttcatac 480
tcacagtgtg tagggatcat agagaacacg cagagccgca agctgtctgt cacatccagc 540
ttccgcagtt cagtcgag                                     558

```

<210> 563

<211> 263

<212> DNA

<213> Mus musculus

<400> 563

```

gaattcggcc aaagaggcct atagagagtg atagtgcata acccagaatg gatgtcctct 60
ttatagccct ccttggttga ccactcatcc tgggacagga atacgaccat gaagagcagc 120
tggaagaggg tgattactat caagtggcat attattatta cacagtgacc cctaattatg 180
atgacttcag tgtaaaactc actgttgatt actccgtgtt tgagtcagag gatagggtga 240
acagggttga caaggaggtc gag                                     263

```

<210> 564

<211> 537

<212> DNA

<213> Mus musculus

<220>

<221> unsure

<222> (434) .. (435)

<400> 564

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gaattcggcc aaagaggcct aatttgacaa gattcatttc acaagggtgc tcaactctgag 60
gacatgcagt ttggtttctc ctacttttat tacctcatga gtgcagttca gcccctcaat 120
atttcccaag tctttcatga agtagacaca gaccaatctg gtgtcttgtc tgataggga 180
atccgaacac tggccacgag aattcacgac ctacctttaa gcttgagga tttgacaggt 240
ttggaacaca tgtaataaaa ttgctcaaaa atgctccccg ctaatatcac tcaactcaac 300
aacatccac cgactcagga agcactactac gaccccaacc tgcctccggt cactaagagt 360
cttgtcacca actgtaagcc agtaactgac aagatccaca aagcctataa agacaagaac 420
aaatacaggt ttgnnatcat gggagaggaa gaaatcgctt tcaagatgat acgaaccaat 480
gtttctcatg ttggttgcca gttggatgac atcagaaaaa accccaggag agtcgag 537

```

<210> 565

<211> 418

<212> DNA

<213> Mus musculus

<400> 565

```

gaattcggcc aaagaggcct agggaggtgc gaaatcaaag ttgcgcaacc caaagagggtg 60
tacaggcagc agcagcaaca acagaaagga ggcagagggg ctgcagccgg cggaagagga 120
gggtgctaggg ggcgtggaag aggtcagggc caaaactgga accaaggatt taataactat 180
tatgatcaag gatattgaaa ttataatagt gcctatgggtg gtgacagaa ctatagtggc 240
tatggcggtc atgattatac tgggtataac tatgggaact atggatatgg acagggatat 300
gcagactaca gcggtcagca gagcacttac ggcaaggcgt cccgaggggg cggcaatcac 360
cagaacaatt accagcccta ctaaaggagg acgctggggag agcagcggtg aagtcgag 418

```

<210> 566

<211> 420

<212> DNA

<213> Mus musculus

<220>

<221> unsure

<222> (268)

<400> 566

```

gaattcggcc aaagaggcct agtggatgga gcagtcacag tgattactat gcaaattatt 60
actctggcca gtatgattat ggagacccca gccgctggga tcgttactat gggctctgcc 120
ttagggatcc tcgcacctgg gaccggaggt actggtatga ctctgaacat gaccataca 180
ggaaggacca ctatgcttac agtgacaggg ctgagaaatg tgatgatcac tggagggtatg 240
accctcgctt cactgggagc ttcgacgntg acgctgagat ccacagggac ccctatggag 300
aagaagcaga cagacgcagc atccacagtg agcactcggc acggagcctg cgcagcactc 360
acagtctgcc cagccgccgc agcagcctca gctcccatc acaccagagt cggggtcgag 420

```

<210> 567

<211> 385

<212> DNA

<213> Mus musculus

<400> 567

```

gaattcggcc aaagaggcct agaaaatgaa aaactcacag aaacctcaga agatagattc 60
agaaataagt cccaagaagg ataatagaaga atttctacaa aataaaaaaa agaaaagggg 120
taccactgac cttagtgtag aagcttttgc caaaggaaag ctaaggacca aagattccag 180
tacctctgaa atggtgaaat ctccaacaat gatttcttct aaggcaaaga gagaaaagca 240
atcagtgggt ccagtcataa tggcaaaaga caatgatggt aaaatgcctg acgaagatgc 300
cctggaggag gattcagata gtgctagtga gctaggaagt gatgaggaat ctgaagatga 360
aatcataagt gatgggtatcg tcgag 385

```

<210> 568

<211> 282

<212> DNA

<213> Mus musculus

<400> 568

```

gaattcggcc aaagaggcct actagacctg cgtcgacgga gctgatttgc cattggtgcc 60
agtctcaaac ccgaagcca cgatttgcct tatttttcac tgtttggcct gatctattcc 120
catccctgag acagagcccc tgccttaaag actggttttg taatgacaga cgtctccggc 180
actcagaatc actttaattt catagagtgt gggtttttat ttttgtttt tttttttccc 240
aagtgcacag aagggctgct cacaccacc agactagtct ag 282

```

<210> 569

<211> 329

<212> DNA

<213> Mus musculus

<400> 569

```

gaattcggcc aaagaggcct aaaacctcat gagtgccttg ccactgaata catccattgt 60
gggtttggct tgaatggtgc ttaaaaacca tccctgagca gaggggaagc tggttaactg 120
tcagtcaaag cagtttggtg aataaaagag actgggccct gggctatctt actagataac 180
actttgtaaa aattgggtct gaaaaccctg tttatttgca tatttgtaa aacctgtat 240
atgtggttgt tttgtgagtg tgcttaaaag tgggttgacc agggcaagat cgctcattgg 300
aacagctgtg tggaatgggg aaagtcgag 329

```

<210> 570

<211> 280

<212> DNA

<213> Mus musculus

<400> 570

```

gaattcggcc aaagaggcct atctgtgtct gtggacctga atgttgacct atcgcttcag 60
atcgacatac ctgatgcact cagtggagaga gataaggtca agtttacagt gcacaccaag 120
accacactgt ccacatttca gagcccagag ttttctgtta caaggcaaca tgaagacttt 180

```

gtgtggctgc atgacactct tactgaaaca acggattatg ctggccttat tatccctcct 240
gctcctacaa agccagactt tgatggccac gagagtcgag 280

<210> 571
<211> 291
<212> DNA
<213> Mus musculus

<400> 571
gaattcggcc aaagaggcct aaaaaaaagg ttttattttt cccttcttgt agtaagtgt 60
ctagtctctgg gtgtcttcac tgccttgccc tggaaactgtg tttagaagag agtagcttgc 120
cctacaatgt ctacactggt cgctgagttc cctgcgcact gcacctcact gtttgtaaata 180
gctgtgatta ggttccctta tggcaggaag gctttttttt tctttttttt ttttcttttc 240
tttttttttt ttttaaagga aaaccagtca aatcatgatg ccacagtcga g 291

<210> 572
<211> 234
<212> DNA
<213> Mus musculus

<400> 572
gaattcggcc aaagaggcct aatactttat aaataaaaaa aaaaaaaaaa aaaaagaaaa 60
gtgaaatata tataatatatc cccagtaatg atagataagt taccaccag gctctgtttt 120
ttgtttgttt ggctttttgt tttgtttgtt tttcttcccc tttccccca atcagaacag 180
acacagttgg tggggacagt aatgtgtgga gtcttgaaac caggaagcgt cgag 234

<210> 573
<211> 273
<212> DNA
<213> Mus musculus

<400> 573
gaattcggcc aaagaggcct aagcatttat ttaagtggag aattaattag ttttgtattc 60
cctattttac aaaaattgat aaagatatag ttcattggatt ttattctgct gttatgggtt 120
tatttctatg ggtctgaaag cataacatgc tcttccatgg ttttccccctc tcggaccag 180
ccctggcttg gcaggcctct tccacagtt aacagtgttg atctctgcta ctcaaccagt 240
ccttctagga atgaatctcc catcagagtc gag 273

<210> 574
<211> 251
<212> DNA
<213> Mus musculus

<400> 574
gaattcggcc aaagaggcct aaagaagata accacatcaa gatgggttggg aagctgaagc 60
agaacttact cttggcgtgt ctggtgatta gttctgtgac cgtgttttac ctgggccagc 120
atgccatgga gtgccatcac cgaatagagg aacgtagcca gccagcccga ctggagaacc 180
ccaaggcgac tgtgcgagct ggcctcgaca tcaaagccaa caaaacattc acctatcaca 240
aagaagtcga g 251

<210> 575
<211> 300
<212> DNA
<213> Mus musculus

<400> 575
gaattcggcc aaagaaccat ggttgggtggg gtcattgatcc ccaatgtgga aaccatcctt 60
ggcttcacag gagcaacgat ggggagcctc atctgcttta tctgcccggc tctgatctat 120
aagaaagccc acaagaatgc cccctcagcc caggtgggtgc tctgggtcgg cctgggcac 180
ctcgtggtca gcacactcac caccctctct gtgaccgaag aagctcctct ggacttgacg 240

caagaagctc gcagcggcca ccgaggagat gctgagggcg caatgaaggt gaaagtcgag 300

<210> 576

<211> 353

<212> DNA

<213> Mus musculus

<400> 576

gaattcggcc aaagaggcct agcagagctt tcatatccac gatgcgtttt ctggccgcca 60
cgatccctgct gctggcgctg gtcgctgcca gccaggcgga gccctgcac ttcaaggact 120
gcggctctaa ggtgggagtt ataaaggagg tgaatgtgag cccatgtccc accgatccct 180
gtcagctgca caaaggccag tctacagtg tcaacatcac ctttaccagc ggcactcagt 240
cccagaacag cacggccttg gtccacggca tcctggaagg gatccgggtc cccttcctta 300
ttcctgagcc tgacggttgt aagagtggaa tcaactgccc cagtacagtc gag 353

<210> 577

<211> 292

<212> DNA

<213> Mus musculus

<400> 577

gaattcggcc aaagaggcct aaaagaagga accgtgaaca ttttagacac ccttttcttt 60
ggggtaggct ctgcccagg cgccgtctcc ttccccccc caaacactaa tgcatttccc 120
taacctagtc acctcgctcc taaaggcttt cctaccccag ccaaatctcc aaaagtgagt 180
caaggggcta aaaaacaagg ctggcctcat ttgctggacc aaatctacag ggagaacccc 240
tgagtgaggt tgtccaggga attgtccccc ggtgagggaa gcaggggtcg ag 292

<210> 578

<211> 351

<212> DNA

<213> Mus musculus

<400> 578

gaattcggcc aaagaggcct agaaaacaaa aaagaacaag caggagatag cgtttgcct 60
ccctaaccac acagcatcat ctcaccggct cgtgggactt gacgtgaatt ctgtgggtta 120
atgcaccagg cttactagt tccattttca tccaagatcc ttactctcta acgttcttgg 180
tcctattgaa gcatttcagt atctaagcat actgcaatgt taatacccaa gagaaaagcc 240
attacgtacg tattctggtc acacgatcgg tgtggcaccg ttttatttgt tactgttgtt 300
gttttatttt gttgtttctg ttttttaaat aaactatcac acccagtcga g 351

<210> 579

<211> 281

<212> DNA

<213> Mus musculus

<400> 579

gaattcggcc aaagaggcct acaaaggaca gccctgtctg cacactgagt tactgtggat 60
ttttaagaaa cttcgctaaa gaatttaggc atttctgatt cagttaaagg attgccatt 120
catcagtcctc tgaaactaga gcaatctcaa caggacaaga aaagaaaatg ggctttttta 180
gtccaatata tgtccttttc ttctgttttg gagttagagt atactgcaa tatgaagctt 240
accgatggga tgacgattat gaccaagagc aaaatgtcga g 281

<210> 580

<211> 317

<212> DNA

<213> Mus musculus

<400> 580

gaattcggcc aaagaggcct aggaaagcaa aggaggatag taccaagcaa gtgtctattc 60
gcagaaatca aagagaggaa accggcgtct caatgtctca gaaagtgaga gaagctggga 120

```

gagacgtcag ctacttgata gtggtgctct ttggagtcgg ccttacaggc ggcttggtat 180
acgcgatctt caaagaactg tttttttcgt ccagccctaa tatcatatat gggaaagcct 240
taggaaaatg cagaacacac cctgaggtga ttggtgtatt tggtaggcct ttgaaaggct 300
acggggaaag agtcgag 317

```

<210> 581
 <211> 397
 <212> DNA
 <213> Mus musculus

<220>
 <221> unsure
 <222> (272)

```

<400> 581
gaattcggcc aaagaggcct aagtttcggt tttgttttgt tttgttttgt tttgttttgt 60
tttgttttgt taaggaaatca gatagccaga aaaaaaaatg ctattgcttg ttttcatgaa 120
cttcagtgtg ctcttttttag taaaccacgt actttccaca aagtcttctc tgaccttccc 180
catcactgga cgggttcaccc atcttcttct ccaagtgttt atccccacgc ccaagccttt 240
cctgtctgaa gccaaagcctg ctacatttgt tncagaccaa gcttatacac agctcgacaa 300
ctgcactccc actgtaggct cgggtgtgta ctcttgtctt gtgttgggaa ggggaagtga 360
agtgataagc cagaattttt ttcaggaggt tgctcgag 397

```

<210> 582
 <211> 282
 <212> DNA
 <213> Mus musculus

```

<400> 582
gaattcggcc aaagaggcct agggcagacg gtgaaactca agtattgctt cacctgtaag 60
atgtttcggc ctccccggac ctgcgactgc agtgtctgcg acaactgtgt ggaacgggtt 120
gaccatcact gcccttggtt gggcaactgt gtggggagac ggaactaccg cttcttttat 180
gcgtttattc tctccctctc cttcttgacg gccttcacat tcgcctgcgt gggtaccac 240
ctgacccttc tttctcaagg aagcaacttc ctctccgtcg ag 282

```

<210> 583
 <211> 246
 <212> DNA
 <213> Mus musculus

```

<400> 583
gaattcggcc aaagaggcct agcaaagtat ccagagatca agtccttgat gaaacctgac 60
cacaatctga tctggattgt agccatgatg cttctcgtcc agctggcttc attttactta 120
gtcaaagatt tggactggaa atgggtcata ttttggtcct atgtctttgg cagctgcctt 180
aaccactcca tgactctggc tatccatgag atttccacaa atttccccct tggccaccct 240
gtcgag 246

```

<210> 584
 <211> 539
 <212> DNA
 <213> Mus musculus

```

<400> 584
gaattcggcc aaagaggcct cggcggtgta gccagcaaag cgcacccgga gccccgggtc 60
tcctgcggca gatgtttgaa cccaagagct gcacctatac ctaccttctg ggtgaccggg 120
agtcaagaga ggcagttctg atcgaccccg ttctggagac agcgcacg gatgctcagt 180
tgattaaagga gctggggctc aagctgttgt acgctgtgaa cactcactgc catgctgacc 240
acatcacccg caggggggtt ctccggtccc tgctcccggt ctgccagtct gtcactctcc 300
gcctcagcgg agcccaggct gatttgcata tcggggaagg tgattccatc cgctttggac 360
gcttttcttt ggagactcga gccagccctg gccacactcc aggctgtgtc acctttgtcc 420

```

tgaacgacca gagcatggcc ttcactggag atgccctgct gatccgaggg tgtggacgga 480
cagacttcca acaagggtgt gctaagactt tgtaccactc tgtgcacgag acagtgcgag 539

<210> 585

<211> 419

<212> DNA

<213> Mus musculus

<400> 585

gaattcggcc aaagaggcct actggaagat tacgggactt tgaagtaaaa gatctactta 60
gtctaactca gtcttttggc tttgacacgg agacattttc cctagctgtg aattttactgg 120
acagattctt gtctaaaaatg aaggtagcag cgaagcatct tgggtgtgtt ggactgagct 180
gctttttattt ggctgtgaaa gcgactgaag aggaaaggaa tgtcccactg gcgactgatt 240
tgatccgaat aagtcagtat aggttcacgg tttcagacct gatgagaatg gagaagggtcg 300
aggtttctccc tatagttagt cgtattaatt tcagaggagt atttagaaga gaagctgaag 360
ctgtcgagac aaacgaaact agtgatagac ctttgggtcc acttcacaac caacaaggg 419

<210> 586

<211> 350

<212> DNA

<213> Mus musculus

<400> 586

gaattcggcc aaagaggcct agagctttca tatccacgat gcgttttctg gccgccacga 60
tcctgtgctt ggcgtgtgtc gctgccagcc aggcggagcc cctgcacttc aaggactgag 120
gtctaagggt gggagttata aaggaggtga atgtgagccc atgtcccacc gatccctgtc 180
agctgcacaa aggccagtcc tacagtgtca acatcacctt taccagcgcc actcagtccc 240
agaacagcac ggccttggtc cacggcatcc tggaaaggat ccgggtcccc ttccctattc 300
ctgagcctga cggttgtaag agtggaatca actgccccat caatgtcgag 350

<210> 587

<211> 278

<212> DNA

<213> Mus musculus

<400> 587

gaattcggcc aaagaggcct agcgaaggaa ttttaaggaa cagatcatcc accatgtggc 60
cactatcatt ctccctgtgt tctcctgggt tgccaattac gtccgggagc ggaccctcat 120
catggctctg catgacgctt ctgactacct gctggagtct gccaaagtgt ttaactacgc 180
gggatggaag aacacctgca acaacctctt catttgtgtt gccatcgttt tcatcatcac 240
tcggctgggt atcatgcctt tctggatcct acgtcgag 278

<210> 588

<211> 558

<212> DNA

<213> Mus musculus

<400> 588

gaattcggcc aaagaggcct agaagaagat ttactggaaa ttaagaactt gctgctgtta 60
aataaaactt tgtatatgtt cagcctgcag gagataacat ttagtcaaaa aaaaaaaaaa 120
aaaagaaaaa aaagaaaaag aaaagaaaaa gaaagaaacc attttgacag caagcacctt 180
ctgtgaagtt ctaaaaaggg aaaggatctg cgtgtgtctg gtcatttaaa cacatatcca 240
gttctgtgta ctctagagtt tgacggactg tatatttttc aggcagccaa gccaaagtat 300
tgtatcattt ggggtgtagaa actgtgtttt cctgtgtata tgtgatcaat atccaagggt 360
ctaaaagtta gcttgcttgt attggaattt aaaacaacaa caacaaaaag aaatatgtca 420
ctgtgttttc aatttgtatt ttcacagctg ctcccttttc tatggctcct gggtcatatc 480
tcacagtgtg tagggatcat agagaacacg cagagccgca agctgtctgt cacatccagc 540
ttccgcagtt cagtcgag 558

<210> 589

<211> 249
 <212> DNA
 <213> Mus musculus

<400> 589
 gaattcggcc aaagaggcct aaaaagggtta agttttgttt tccactgaag tactatttaa 60
 catctcagaa aaaaaccctg catgttctat agttttatat taaaatccat catttcatat 120
 gcaactgtatc aaaaacaggt tacttgctcg aacatgggtta gtgtactaac aggtctgccc 180
 acccctaccc tcacccccag cttcatgcc a gcatatgtag atttgagttc taacacagca 240
 catgtcgag 249

<210> 590
 <211> 340
 <212> DNA
 <213> Mus musculus

<400> 590
 gaattcggcc caaagaggcc tacgttcac tctggagcat ccgaattgca tcaccgggtca 60
 gaaaacaact taccgaaacc tcagacaaag cgtcaaactc cagaggatgc tacgagctct 120
 ttggctcttc tggatcttgg tggccataac agtcctcttc agcaaacgct gttctgctca 180
 ggagtctctg tcagtgtgatg cttctggggg gtgtgatggc cgtccaggt ctttcacctc 240
 tattccctcc ggactcacag cagccatgaa aagccttgac ctgtctttca acaagatcac 300
 ctacattggc catggtgacc tccgagcgca ttacgtcgag 340

<210> 591
 <211> 169
 <212> DNA
 <213> Mus musculus

<400> 591
 gaattcggcc aaagaggcct agtcgggctg ttttctggtc atttcttcca tgaaggctctg 60
 gtgttctgca atgagggttt tcacctcttc gatctcttgg gggataaact ccttatcttt 120
 ctcggtcagt gtggtttccg cccactgtag ccatgccagc aaagtcgag 169

<210> 592
 <211> 447
 <212> DNA
 <213> Mus musculus

<400> 592
 gaattcggcc aaagaggcct aatgaaggac atcgtcatgc tgggtgaccag tctcgggaaa 60
 tacatcttcg catctatgct gggccatgtc atccacggag gaattgtcct gcctcttggtg 120
 tattttgtct tcacaaggaa aaaccggttc acgttcctcc tgggctcct caccctattt 180
 gcgacagctt ttgacgacct ttccagctca gcaacccttc cgtctatgat gaagtgcatt 240
 gaggagaaca atggtgtaga caagaggatc agcagggttca tcctcccat tggggccacg 300
 gtcaacatgg acggagcagc catcttccag tgtgtggccg cagtgttcat tgcccagctc 360
 aacaacgtag acctgaacgc aggacagatt ttcaccattc tagtgactgc caggcatcc 420
 agtggttgag cagcaggtaa tgtcgag 447

<210> 593
 <211> 430
 <212> DNA
 <213> Mus musculus

<400> 593
 gaattcggcc aaagaggcct aggtctgaga cagccctgcc agccccggcg cccacttctg 60
 ggccctgggc agcaccatcg tccccagctt ctgcttcggg cccagatca gctcagccag 120
 cccagcgtc cagcctgggc tcagccccgc acgctctctt tggcgcttcc aggtccaggt 180
 cagcgcctgc ggtccatcca gactccatgg catcgctacc gcccactccg gtccctgttg 240
 acctcatgtc acctctgcgg gtctctactg accgtttggc accgttgcca acctttgcgg 300

tcattggacca cactgtgtcc ttgtgaccag cctgttaggg ctaccacagg acagcactgc 360
 cagcccccac agtctctgct agtccggtgt catcagtgcc ctcggactct caccttgcaa 420
 ccacgtcgag 430

<210> 594
 <211> 259
 <212> DNA
 <213> Mus musculus

<220>
 <221> unsure
 <222> (148)

<400> 594
 gaattcggcc aaagaggcct agtttcaagg tctgtcttag ttctcattct caagattgtt 60
 tccagttgca agttagagga aagccagcta gctgcccagc cttaactctg ttcagtgtcc 120
 tgttactaac attttttaac agattggntt ctacatgttt aaagtatcca gcgttggatt 180
 ttacctcttg ctagtcccat ttgtccctgg tgctgctttt aaaggtatag ggccctgtga 240
 agtgtccagt aacgtcgag 259

<210> 595
 <211> 317
 <212> DNA
 <213> Mus musculus

<400> 595
 gaattcggcc aaagaggcct acctttgacc tctgaaaaaa cctatatagt ttctcctaca 60
 gacaccttgc cagtaacctt acaggtctta taggagagca gatccaagtt gccaggctga 120
 tctgcaagca caaacatttg tcaagggaaa gcacaggctg ttactttcag tacaaaaatgg 180
 ttcttttgcta tggatggatt ctcttcttct tgcccatgt cctgttccca aggaccgact 240
 tcctgcagca ctgtgggtgga ctcttctatg aggagacaac atctgggcct tattcaatag 300
 cctgtggcgg ggtcgag 317

<210> 596
 <211> 271
 <212> DNA
 <213> Mus musculus

<400> 596
 gaattcggcc aaagaggcct acttggattc ctttagtttag cttagctctg tctcttgttt 60
 cataaaacac actgggttag aatagaggct cctgcattac atgggttctg tcaactgttt 120
 ttgttgggtt ttcttttttg tttttcgaga cagggtttct ctgtatagcc ctggctgtcc 180
 tagaactcac tctgtagacc aggttggcct cgaactcaga aatctgcccg cttctgcctc 240
 ccaagtgtct ggattaaagg caagagtcga g 271

<210> 597
 <211> 338
 <212> DNA
 <213> Mus musculus

<400> 597
 gaattcggcc aaagaggcct agcatgttca gtatcaaccc cctggagaac ctgaagctgt 60
 acatcagcag ccggccgccc ttggtggttt ttatgatcag tgcagcgcc atggccatcg 120
 ccttcctcac cctgggttac ttcttcaaga tcaaggagat taagtcccca gaaatggctg 180
 aggatgggaa tactttttctg ctccggttta atgatttggc cttgtgtgta tcagaaaacg 240
 agacactgaa gcatctctcc aacgatacca ccacaccaga gagcaccatg accgtcgggc 300
 aggccagatc gtctaccag ccgcccag cgcgtcgag 338

<210> 598
 <211> 304

<212> DNA

<213> Mus musculus

<220>

<221> unsure

<222> (161)

<400> 598

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gaattcggcc aaagaggcta caactttctg ctcaacacta cagactacag aatcctgctc 60
aaggatgagg accatgaccg catgtatgtg ggcagcaagg actacgtgct gtccctggac 120
ctgcatgaca tcaaccgaga gcccttata tcattgggca ncctccccgc agcgattga 180
gagtgcatatc tgtcaggcaa ggatggcaat ggagagtgtg gtaacttcgt ccggctcacc 240
cagccttggga accgaacaca cctgtatgtg tgtgggaccg gtgcctacaa cccacgcgt 300
cgag 304

```

<210> 599

<211> 169

<212> DNA

<213> Mus musculus

<400> 599

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gaattcggcc aaagaggcct aggagaaaaa actaaaggag tacatgcgca tgatggggct 60
taacagctgg ctacactgga gcgcttggtt cctcatgttc ttcctattct tcctcatcgt 120
ggtctccttc atgacgctcc tgttctgtgt caaagtgaag acggctcgag 169

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<210> 600

<211> 326

<212> DNA

<213> Mus musculus

<400> 600

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gaattcggcc aaagaggcct actgtatttt taataacaac aacattagta gcccttctga 60
aaaaagaaaa cagagaagcg tcaatagtaa aagaagagac ccaagggatc acagacactt 120
acaaagctgct attctcaatt ataaaaatgc cagcagttct ggccttttgc cttctgattc 180
taacgtcaaaa gattggcttc tcagcagctg atgctgtgac aggcctgaag ctggtggaag 240
aaggggtgcc taaagagcac ctggccttac tagctgtccc aatgggtccct ctgcagataa 300
tcctgccact cctcgtgcaa gtcgag 326

```

<210> 601

<211> 355

<212> DNA

<213> Mus musculus

<400> 601

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gaattcggcc aaagaggcct actgtgaaaa gatgtcgctg tcttccaaag tgtccctccc 60
ccctattcct acagtaagca atatcaaatc tctctccttc cccaaacttg actctgatga 120
cagcaatcag aagacagtca agcttgcgag cactttccat agcacatcct gcctccgaag 180
tggcgcatcc cggagtctcc taaagccttc caccctaaagc agtgccagtg agctcaatgg 240
ggaccacact cttgggcttt cagctttgaa cttgaacagt ggcacagagg tgccaacact 300
gacatcctcc cagatgcctt ccctgtctag cgtgtctgtg tgtacagaag tcgag 355

```

<210> 602

<211> 371

<212> DNA

<213> Mus musculus

<400> 602

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gaattcggcc aaagaggcct aagtaaagaa actgttagaa agcagatacc atcaaataagg 60
ttctgggaag tgcgaaatca aagttgcgca acccaaagag gtgtacaggc agcagcagca 120
acaacagaaa ggaggcagag gggctgcagc cggcggaaga ggaggtgcta gggggcgtgg 180

```

aagagggtcag ggccaaaact ggaaccaagg atttaataac tattatgatc aaggatatgg 240
 aaattataat agtgcctatg gtggtgatca gaactatagt ggctatggcg gctatgatta 300
 tactgggtat aactatggga actatggata tggacaggga tatgcagact acagcggcca 360
 gcagagtcga g 371

<210> 603
 <211> 529
 <212> DNA
 <213> Mus musculus

<400> 603
 gaattcggcc aaagaggcct agaattatct tgaatgagat aaaattgcta gtatttttgt 60
 tgctgtagca ttctttttaaa aaatgtgccaa taaacagtct atagtaaaat tgagagacaa 120
 aaatagaagc ctgtctttac cctaaaaatag aataaacttc ttaagaaggc caggaaggct 180
 ttaccacggt ttggtagagg aagaaaaact tgttttcata aatatttgct ttgtgaagac 240
 acggtgaaga taattgttca gggccaggat gtagcctaata agagagtgcg tgcattggcat 300
 atttaaggcc ctcaagttatc cctagcctga caaaaagggtt ttcttcctaa tctctaaagt 360
 caagttgaaa gcttttatta attctatgtg taatagagtt ttaaaataag ttatattcca 420
 gttttttcag cagtgaactc ctaagtcaaa cctatcaaat ccttgtaatg aacctgtaac 480
 cattcgtctt ttataatga gattttctta aatttggcaa gaggtcag 529

<210> 604
 <211> 263
 <212> DNA
 <213> Mus musculus

<400> 604
 gaattcggcc aaagaggcct aacaagataa gtaacttaag tgtgaccagt cactaggcaa 60
 tgaatcctaa tcttctaaact aacttatata tctttctgcc ttggtgctgg gagcggaaact 120
 tggatcttct tcaagagcag gacttgctct cagctgctaa gtcattctcca gccccattt 180
 gtttgttttg agagcaggct tcaactctgtg gtccaggctg gtttggaact cactttgtag 240
 cacacgttgt cctcacagtc gag 263

<210> 605
 <211> 241
 <212> DNA
 <213> Mus musculus

<400> 605
 gaattcggcc aaagaggcct agtctggcat ggtacttgga gtgggtgctg gcgtgttcct 60
 cctcgtctctg atctgggtgc tgggtgctgt gctgtgtgtg ctgttatcca gagcctctgg 120
 gatagctagg ttctccatcg tctttgtctt cctcggagct ctgatcatta ctacagttct 180
 attgcttttc cctcagacca gtgaattccc agccccagaa ggagaaataa agcttgctga 240
 g 241

<210> 606
 <211> 279
 <212> DNA
 <213> Mus musculus

<400> 606
 gaattcggcc aaagaggcct agtgcctattg aaacattggt aacagcaatt tctttaatta 60
 aacaatccaa agtctctgca gatgatcgtt gcaaagttct tattagctct ctgcaggatt 120
 gccttcatgg aatcgagtc aagtcctatg ggtctggatc cagacgtgaa cgatcaagag 180
 aacgggacca tagtagatca cgggaaaaga gtcgtcgcca taaatctcgg agtagagatc 240
 gccacgatga ctattacaga gagagaagca gaggtcag 279

<210> 607
 <211> 276
 <212> DNA

<213> Mus musculus

<400> 607

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gaattcggcc aaagaggcct agtgaaatct ttagtctaca tgttggcagc caccttgctt 60
ggcctggggt tgcacccaat ttctgggcat tttagagccg aacattacat gttcttgaag 120
ggacacgaaa cctactccta ttatgggcct ctgaacttgc tcaccttcaa tgtgggctat 180
cataacgagc accatgactt cccaacgtt cctgggaaaa acctgcccac ggtgaggaag 240
atcgcaagtg agtactacga tgacctcca gtcgag 276
```

<210> 608

<211> 332

<212> DNA

<213> Mus musculus

<400> 608

```
gaattcggcc aaagaggcct aacatttact taaaggagaa aagaaagggg gtcgcagaaa 60
tggctggggc aattatagaa aacatgagta ccaagaagct ctgcattgtt ggagggatc 120
ttctggtttt ccaaatcggt gcctttctgg tgggaggcct gatcgctcca gcaccacaa 180
cagcagtacc ctacacggca ataaaatgtg tggatgtccg taagaaccac cataaaacaa 240
gatggctggc gccttgggga cctaacaagt gtgacaagat ccgtgacatc gaggaagcaa 300
ttccaaggga aattgaagca aatgacgtcg ag 332
```

<210> 609

<211> 308

<212> DNA

<213> Mus musculus

<400> 609

```
gaattcggcc aaagaggcct acctttcttt cctcccttcc tccctccatg tccctctctc 60
ctccctccca cctctcacc ttctccatcc ctccctccctc tttctttttg tactttccag 120
ctggagcagc agcagcagct gggcctgaat caatgattga cttccccacg acctccctt 180
ctcttttgcc aatgatattc ctttgccctt ccagtcattc tttaatTTTA tcgtgtatgg 240
ttttgtctct ccttctctct cctctctctc tccctctttc tccccctct cccccaccga 300
cagtcgag 308
```

<210> 610

<211> 310

<212> DNA

<213> Mus musculus

<220>

<221> unsure

<222> (122)

<220>

<221> unsure

<222> (125)..(127)

<220>

<221> unsure

<222> (259)

<400> 610

```
gaattcggcc aaagaggcct aggggtgtgt gtgtgtgtgt gtgtgtgtat ggcttattct 60
cccaatgaaa tacatatata tatatatgtg tgtgtgtgtg tgtgtgtgtg tgtgtgtatg 120
tncnnncct aagttgcatt ctgtcacaat aacaaagaac atggatttcc aacataatga 180
tgcagataca aaaaaaggaa aggaagagag gggggaggga gggagtgaaga aaaggaggga 240
gggaggaagg gagggaggna gggaggagg gagggaggga gggaggagg gaggaaggga 300
ggaagtcgag 310
```

<210> 611
 <211> 326
 <212> DNA
 <213> Mus musculus

<400> 611
 gaattcggcc aaagaggcct aaggagatga gagagggatt gtgagtagtg gagtaaacca 60
 ttctggaatct ggtgaaatgg atgacccagg tgtgcagcag cagagtcacg gcagggcacg 120
 cagtagcaca gctgtggtgg catgtgcccc tgtgaacatt aacataacag ggctatacat 180
 ctgcccagcag ctgaggctag acagccaact tggactttat gggccattcc tctacaggct 240
 caccactcat cccatggcca aggcagcttt cccttctgtg ttttctgtgt cctcagcctc 300
 cacctttctg ccaccacga gtcgag 326

<210> 612
 <211> 278
 <212> DNA
 <213> Mus musculus

<400> 612
 gaattcggcc aaagaggcct aagagattca ggacctgcag agtcgccaga agcatgaaat 60
 tgaatctttg tatactaaac tgggcaagggt tccccctgct gtcattattc ccccagctgc 120
 tcctctgtcg gggagaagaa ggagaccac taaaagcaaa ggcagcaagt ctagtgcgag 180
 cagctcattg ggcaataaaa gccacagct ttcaggcaac ctgtctgggt agagtggaaac 240
 ttcagcttta ccccccaac agaccctcca cagtcgag 278

<210> 613
 <211> 346
 <212> DNA
 <213> Homo sapiens

<400> 613
 ggcaagaact attcttatgc agtcaagttt accacaggct cagctggctt caatatggaa 60
 tctttctgac attgatcaag atggaaaact tacagcagag gaatttatcc tggcaatgca 120
 cctcattgat gtagctatgt ctggccaacc actgccacct gtcctgcctc cagaatacat 180
 tccaccttct tttagaagag ttcgatctgg cagtgggtata tctgtcataa gctcaacatc 240
 ttagatcag aggtaccag aggaaccagt tttagaagat gaacaacaac aattagaaaa 300
 gaaattacct gtaacgtttg aagataagaa gcgggaggga ctcgag 346

<210> 614
 <211> 344
 <212> DNA
 <213> Homo sapiens

<400> 614
 gaattcggcc ttcattggcct agaattgtct gaactaggcc ccatatttta aaagaaatac 60
 acttattacc tttaaaatca tatatattca cttccaactc aaatggcaaa cgaagcacct 120
 cccactcgaa gccagctga aatattttta aatgtgtgtt aaataaaaaa tttctggccg 180
 ggcgcggtgg ctctttaaag gaggtttctg ggggaaggggt gcagagaaat aggatagtag 240
 gtggaaggga aagttagatt agcagatttt ttgtttttaa aagataggaa atgtaacatg 300
 tataggctga tgagagtagt ggttaaagag ggggaactgt cgag 344

<210> 615
 <211> 569
 <212> DNA
 <213> Homo sapiens

<400> 615
 gaattcggcc ttcattggcct agagctggct ttgggggtgac gtcggcagga ggggcagagg 60
 ggctctggga aggccttctg ggtgtcgcgg taagttagta gctgggaggg ctctggggca 120
 ggcccttctg ggtgccagg ctgctccac tgcagcttgg ttccacatct ttcttcagcc 180

```

tcttgcggtc aatgggctct cgggggacag atggcctttc tcgggtgtgc ttagaggaga 240
aactgtacga atgaagttag cggataaatt tgcacgcccc agatcctggg ggcgtaaagt 300
catccataga aatgccactc ttatctgtca cggccccctc gatggaggaa gtggcgctct 360
catcgccagc atctgtggca gacgtttctg cttttccctg actgcctgcc accatggtgg 420
ccagtccatc tcctggagtc cgttccagag cttgctgggc ctgctcctgg ctggcgccct 480
cctgggcccgc cctgggtgtg gcttcacctt gcagagcagc ttgcttcaac ctgggggact 540
ctggcctggc catcggtgtt ccactcgag 569

```

<210> 616

<211> 355

<212> DNA

<213> Homo sapiens

<400> 616

```

gaattcggcc ttcatggcct agttttctgc cccctgcct accccacttc cccctccagt 60
tctcagcttc tctttgaagt cggagaagtg aggatgcgcc tgtgggtcgc agcgggggag 120
gaaaggggag aagaggggga atgcctccac ctccaaactg ctacattaaa gaaagtgttc 180
aagttccctg aaggacagat acggaagatt ataaaaccag cttctagttt gtctccatgt 240
ggaagttcag ccttctggcc tctcccgac ctcttcagta tctatctcc taccgagcac 300
ccatctgatg gatctctccc cactgcaacc caccctctc tccagggagc tcgag 355

```

<210> 617

<211> 514

<212> DNA

<213> Homo sapiens

<400> 617

```

gaattcggcc ttcatggcct agcctcttgc agcttaccgc ctaaaatgtt ccggggccag 60
agcaaaagctt ttatgccttt gaagtgaagg atgcaaaagg aagaactgtt tctctggaaa 120
agtataaagg caaagtttca ctagtgttaa acgtggccag tgactgcaa ctcacagaca 180
gaaattactt agggctgaag gaactgcaca aagagtgttg accatccac ttcagcgtgt 240
tggtctttcc ctgcaatcag tttggagaat cggagccccg cccaagcaag gaagtagaat 300
cttttgcaag aaaaaactac ggagtaactt tccccatctt ccacaagatt aagattctag 360
gatctgaagg agaacctgca ttttagattt ttgttgattc ttcaaagaag gaaccaaggt 420
ggaatttttg gaagtatctt gtcaaccctg agggtaagtt tgtgaagttc tggaggccag 480
aggagcccat tgaagtcac aggcctggct cgag 514

```

<210> 618

<211> 433

<212> DNA

<213> Homo sapiens

<400> 618

```

gaattcggcc ttcatggcct agagatcgtc tcatttaggt taaaatgggg agactgaggc 60
ttttaatggg cagcgtttgc ctaagattac cctgatttaa cggtagtgtt aggtttagtc 120
tctcaacatt tgctctgggc aaagaaagcc cttacctgga caaccatcct ttctggactc 180
caagttaagc ttcttattta tttttttggg cagtcagatg aggggaatgg tagatttttg 240
tgagtctaga ccacagtccg atgaccaacc tttttcaagt gggatccac aaatctgcgc 300
gaccgcccgt gcgattggcc tcaccatccg catcgcccag cagggggcgc ccagggggcg 360
catctcagtg cgtttagcaa gggcggaac tgtgcgctct ctggctagtt ctgaagttag 420
aggctatctc gag 433

```

<210> 619

<211> 309

<212> DNA

<213> Homo sapiens

<400> 619

```

gaattcggcc ttcatggcct agttcccgct tgctctctgt cgctgtcacc gccctgtttc 60
tgtagccgta tggtagcct gtgagaccg ctgccggctg acgtctcctt gcgatggagc 120

```

```

atatccggac gaccaagggtc gaacaagtaa aattacttga ccgattcagt accagcaaca 180
agtcattaac aggaacactg tatcttacgg ctacacatct attatattatc gactctcatc 240
aaaaagaaac ctggatatta caccaccata ttgcctcagt agagaaactt gctttgacta 300
cttctcgag                                     309

```

<210> 620

<211> 320

<212> DNA

<213> Homo sapiens

<400> 620

```

gaattcggcc ttcatggcct actttccctta aagcccttca cccactgaag tcatcccttta 60
tgccagggtg gtaggaagta tggttaaccgt tggtacagta ctcatcacac tatatagctg 120
ctatttggtt ttctttctgc ctgccagaca aggagctccc taagaactga acctcgtgca 180
gaagacaaag cttatctggg agtcagcttt agcacagtac tgattgaaga ctacccttag 240
tacatatgct tgtactctct ctcccttccc tgctccagc cccaaatgac gcttcaacac 300
ctaatacccg agatctcgag                                     320

```

<210> 621

<211> 696

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (491)

<220>

<221> unsure

<222> (507)

<400> 621

```

gaattcggcc ttcatggcct aggagatctt tatgaaacca gaccctgggt tctgcaatag 60
taagataaact ggggaagttt tgggtaacta gaggatgaca tactaaaata gcagcatcac 120
gaagggtgca atgaagtaag atcaagctaa cacgtcgaac tattctgtca acacctctgt 180
gtcgtccatg tctatagggt gacaatggta aatggatgtt ccagcccaga tactctctga 240
aatgacctgc agctttacag aagtaattct taattcatgc actcatcttt ccccagacc 300
ccaaagggtg ccattccaaa gtagtgctgt ccagtggagc tagcatgtgc tacaggccct 360
gagtgagagc ccagcttcgc ctcttttgcg gagcaagttt ggcaggtgtc taacttctgc 420
atctgtcatg cagccacact aacaatttcc accttgccta cctgaagatg ttgatgagaa 480
tatcgaaaat ngtgtgtgtg tgtgtcntgt gtgtgtgtgt gtgtgtgtgt gcatgttaca 540
tagtcaaaga tagtcaacta agaacactgg cttgcagctc atttctact atggcattac 600
attggagaag atgtcataga tttgtgtagt gatgacgagg gtccctgggt gtggcgggaa 660
cctgggtgag tcctccaagt actggccgta ctcgag                                     696

```

<210> 622

<211> 599

<212> DNA

<213> Homo sapiens

<400> 622

```

gaattcggcc ttcatggcct aggttagggg aagatacatt agtagactga tttcaaccta 60
acgaaaaaac ttaatttaat gcaatgcctg ggtatgtatc tgtggtatat aaagagtagt 120
taagtcattc cctgtaacag gtaaatgaaa caagaagaca acaagacgtt gcaaaaactt 180
gcaagagatg tgtcttacag gaaactagta gattagagaa tatgttttta aatctattat 240
acctaaatct aaattaggcc atgaaggccg aattcggcct tcattggccta ctgcctcggc 300
ctcccaaagt gctgcaatta caggcacgag tcaactgcgtc tggccgagag tatgatttta 360
gaaccagaaa aggacttaat atgtaaatc tgaaagtctt ggagatggat ggtggcgatg 420
gttgacacaac aatgtgagag cactccatgc caccacagtg tgcactgaaa atggtaagat 480
ttacactctg tgcattttac cccaacaaaa aaagagaaaa atccatccca tcccgtcatt 540

```

ctcctgggag aggccttcac caggccctgt gtggggcgca ggtctgcgct ggcctcgag 599

<210> 623

<211> 252

<212> DNA

<213> Homo sapiens

<400> 623

gaattcggcc ttcattggcct atagaagctt aaacataagt ggtaagtct tgttgtctag 60
tctcattcac ctgcctcaac atgctttctt tcattctatt tgcatacaaa atgttcttat 120
ttcagttttg tagacaggat atgagtttag atactcgtgt ttgttcagct gtccatcctg 180
catcgttact acaatgcctt tttctgccat ttaatgggtgt ttgtatcaat gttcccatat 240
ctgcacctcg ag 252

<210> 624

<211> 281

<212> DNA

<213> Homo sapiens

<400> 624

gaattcggcc ttcattggcct acagcacact gccttgcttc ccattactca caagaatatg 60
tttattttccc attaaggag acctctgcaa cttacagcta acctagtcta tctgaattct 120
tacctttttt tgcttcttct ctctctgccc tgttctcccg cttgtccctc tcagtgggtg 180
gcactttcag cctgacacct ggggtcctct tagattctgc aagtccaagc agatctccct 240
ctatctacta tgtggagaga atgttatctg aatcactcga g 281

<210> 625

<211> 362

<212> DNA

<213> Homo sapiens

<400> 625

gaattcggcc ttcattggcct accggaggac cccattctgc ccctggtagg cccctggca 60
agtctgccta cgagtctcta aacgggggtct ttctgactcc gaaactaaca gatcttgact 120
ccagaaaagc gtcttgcttg tcatttatga tatttgtgaa agacctagga acaactgaag 180
ctaacacctg agatactgaa ggcctggaag agttaggtac ggctgatgac actggtgaaa 240
agtcataaac gcacccaagt tgagcaagaa ctgtgttggc cgtgtgtgta gaaaaaatag 300
ccacgtccag actgggagaa tttactactt ccaaagacaa gttaatagaa gcggcactcg 360
ag 362

<210> 626

<211> 329

<212> DNA

<213> Homo sapiens

<400> 626

gaattcggcc ttcattggcct aatcgattag ccctcgccgg actcggactg caggaagtga 60
ttgatcggtc gtttggttta ttgattcatt aactacggtg cctccctgac cttctgctcc 120
tcgccagcgc acaagctcac aatccacacc ctccaaagag aacctgctct cgccatccgc 180
aggtctccct ggcccaatag tggggatata cctgagttga gctagaggat tttatccctg 240
ttgggatggg ggacgtctcg ggaagtgtgg tttctaaact aaaattgaca ccctaacatc 300
acaattaaca gaactagaga gagctcgag 329

<210> 627

<211> 498

<212> DNA

<213> Homo sapiens

<400> 627

gaattcggcc aaagaggcct aggaggggca ggagaacctg caggagatcc tcagcaagca 60

```

gctgcttctg tgtcagttcc tcatggcgct gtccattgtc cggacaggag gccacttcat 120
ctgtaaaacc tttagacctgt tcacaccggt tagtgtgggg cttgtctacc tgctgtactg 180
ctgctttgaa cgagttttgtc tcttcaagcc tattaccagc cgtcctgcc aactcagagag 240
gtatgtgggt tgcaagggcc tgaaggtggg catagatgat gttcgggatt acctcttcgc 300
agtgaatatt aaactcaatc agctgcggaa cacggattcc gacgtcaact tgggtgggtccc 360
cctggaggtg atcaagggag accatgaatt tactgactac atgatacggg ccaatgagag 420
ccactgtagt ctgcagatca aagctctggc gaaaatccat gcctttgttc aagacacgac 480
taggcctctt tggccgaa 498

```

<210> 628

<211> 541

<212> DNA

<213> Homo sapiens

<400> 628

```

gaattcggcc aaagaggcct aaatatgtga caaccactgt gctgagctat gtatgcttcc 60
cttattcaat ctatgtaaaa attttgggga agtagctgag acttttttat ttccctgaca 120
gagctgggat tcagtggttg gtttcttgaa aaagctaggt tctttgccta acagcagctt 180
agctcctcaa ttttagggaat gaaagcagga atgaaaatgg ccagagtttt cgctcctcag 240
cttgtggagg agcttgagta catgaacctc aactaagccc ctaacatcag gaaggaaaaat 300
ggaaaggaga attttttagac ctttaaagca gagaaattac tgggtgaatca tgtagcacia 360
caggtacctt tagctttttc actgtgatgc tgtatgactt tctaaggtag tcagcatagt 420
ttgtagtaaa tgattcttat tactggaagt gtaagtggag tgttactcac tagttattta 480
aaaaacattt ataaggctat taaaacatca tctggaatta aagcagcata atttacccca 540
t 541

```

<210> 629

<211> 630

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (186)

<400> 629

```

gaattcggcc aaagaggcct aggttctgaa ggctaggggt gggctaccca tcccatggac 60
cagagtgggg acttgtgggt ccttttctgg gctgcccaca gaccaactgg catgcaccac 120
ctccccgtga aggcccataa aagcctcagg ctcaaccaga gcagggcaga ggaaggagag 180
acatcnggat gaccagctgt agagaggagc taccctctct agggcctcct ctctgctgag 240
agctgcaaac actggaatga cctgcctaca gagagaagcc acctgctcca gggcctctc 300
tctggctgag agcaacagac atcaggacga ccaaaggcag agaggagcca cccactgcag 360
gcctcctctc tgctgagagc tgcagagaca atgggacaac ctggctgacg agaggagcca 420
cccactctag ggcctcctct ctgccgagag tcgaacactc aacaagatga cctgcctaca 480
gagaggaact gccactgcga ggtctcctct gagctgctct gacactcagt aaagctcctc 540
ttcatcttgt acactctaca cttgtctgca tacctcaatc ttcctggacg caggacaaga 600
actcaggcaa aggtgccaca ggccacagag 630

```

<210> 630

<211> 377

<212> DNA

<213> Homo sapiens

<400> 630

```

gaattcggcc aaagaggcct aatcccagtc atctgttctt caatcccaaa taggagaaaa 60
ttcagttttt ttataattga aaatggcatc attcttggac caggcagtat tgcctgggtg 120
ctaactccac atctcctcag acctccaaaa tagtttctat aggactaaat ttacctctta 180
caggtgagtg gagtcttctt aggagacagg agttcaaaat cttgccctt ttgctatatt 240
gaaaaaacac agcacactgt tgcccatcat aataaagagt atttgtagc taatagatgg 300
ttgtactgat ggcttgtttt tcattttttt tctgcttttt ggtccatcta ttaataaaaa 360

```

tgaaccccggt aactgag

377

<210> 631

<211> 263

<212> DNA

<213> Homo sapiens

<400> 631

```

gaattcgcggt ccgcgtcgac cctaaaccgt cgattgaatt ctagacctgc ctcgattctc 60
cttccttgac agttgtcatt tacgtgctga agcatattga cttgaggaaa acgccttcct 120
tggagtttgg catgatgac atttttgctt atctgcctta tgggcttgca gaaggaaatct 180
cactctcagg catcatggcc atccttttct caggcatcgt gatgtccac tacacgcacc 240
ataacctctc ccgcgtcactc gag 263

```

<210> 632

<211> 144

<212> DNA

<213> Homo sapiens

<400> 632

```

gaattcgcggt ccgcgtcgac tggtattatt gttgttttgt cactaattaa aacaatgagg 60
ccccatgcac taggtcatcc tcttgctctc ctcttctctt cttacaatga gcttcttacc 120
aaaaggatga tgggacaact cgag 144

```

<210> 633

<211> 168

<212> DNA

<213> Homo sapiens

<400> 633

```

gaattcgcggt ccgcgtcgac ctaaaccgtc gattgaattc tagacctgcc accgtgcccc 60
gccaatgattt gaaaatattt tctcttagtc tgtggttat cttttcattt tcttaacagt 120
gtcttttgca gagtggagggt ttttaatttt aatgaatcca acctcgag 168

```

<210> 634

<211> 204

<212> DNA

<213> Homo sapiens

<400> 634

```

gaattcgcggt ccgcgtcgac gaaacagact cttccctagg ccctctggag taccatgctt 60
cctggttttc cttccaaactc cctgaccacc ttctctcttc tctttgtgac ctcccattcc 120
tatgtctatc cttcttatat ttgtgatgct caagattcag tccaaggcct ccgttttctt 180
tactttaaaa acggaggact cgag 204

```

<210> 635

<211> 556

<212> DNA

<213> Homo sapiens

<400> 635

```

gaattcgcggt ccgcgtcgac tagacctgcc tccagtatgg tggagggttt taattttttt 60
aatcatttgt ttgttttgtt ttgtttgtgt gcatgtcttt agctctacgc tcatcgata 120
cattccctga ccagcccta gaatcagaca tttctccaag ggaccctagc ttattttatt 180
ggagaatggc attagaaacc aatatctgaa ttctgggtat tttattacta ctgggtcgcc 240
tttctcaag gccactcag ctgacagagc aacaacatat atgtatctac gctaaactgat 300
gtgcacacaa gtgtccataa atacctctag gtatatccat ctctattaaa gtaaatatga 360
gttcatattg atgtttccaa ctgtcaacct gtactacatg gatcattctg gcctccctta 420
caccctgcac accggtactc tccaactccg acagtgaata acctagctga tgccataagc 480
tatctaattt atttaactgc acaattccag tatatatgta aagtgggttc agaattgcta 540

```

gccccgtaccc ctcgag

556

<210> 636

<211> 127

<212> DNA

<213> Homo sapiens

<400> 636

gaattcgcgg ccgcgtcgac actggaagga aatgagcatt tgtctaagga tcctccctgt 60
cctctttcag gcccttccct gcacgatcct catgcccaca acttgggcag gccagcaaaa 120
cctcgag 127

<210> 637

<211> 255

<212> DNA

<213> Homo sapiens

<400> 637

gaattcgcgg ccgcgtcgac ggtacattgt gaacttactt tcccctcatt atttatgaaa 60
ttaagcaactt ctgttggttg taatttgtat ttctactttt gtggattacc cacttatact 120
ctttattcat ttttttgttg ggggatgccc tttgttattg ctttgaggag ctttatgcat 180
acaaatccat tatctaacaa atgtgtttca aatattttat gccagtcttc ctctctctcc 240
tcctccccc tcgag 255

<210> 638

<211> 290

<212> DNA

<213> Homo sapiens

<400> 638

gaattcgcgg ccgcgtcgat cgttggcagt gtgggtggtg tttttgttat agttgagggg 60
tcgctttcat atgctctcac caagtctaac tgactctgga agaccttttc tgaccaagt 120
acaacatcac aacttttagca gccctcatgg actttctcat gtgcacaaaa ctcaaaataa 180
ttttatttat atttacgct ttattgtctt ttcttgtctt cggcggtttt cattcttctc 240
tttcaaatag gctaggttag ttctattctt caagcgatca ttctctcgag 290

<210> 639

<211> 457

<212> DNA

<213> Homo sapiens

<400> 639

gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt cttgacctgc ctcgaggtgt 60
ttgctgtgaa gattttttta aacatgcggt aaagatagaa agcaatcctc cttggcacgt 120
gaggagattc caaacttctc aatatagctt agttctccct gactgtgagg atgttgacaga 180
aaactggatt ttttcaggaa gaaattagat ccagatttag cacttacgca tgtacacaaa 240
tatataaaaa cagtcggacc agggaatggt tctggcgatc tttgtcatct caaagtatct 300
gacgtttatt cagtggcggg ttctatttag tggatattat tattgcacat tgaagctcat 360
ggcaactgtt ttttaagact tgctctgcat tgtattccaa aacagttttc tctccgtctt 420
ttatttttta atgaactcat gtgtcatttc ccacccc 457

<210> 640

<211> 183

<212> DNA

<213> Homo sapiens

<400> 640

gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt ctagacctgc ctcgagtgc 60
cgccagttt taccgtgtt tatgttctt tttttctata gtgtttatcc cttagcgtgc 120
tatgtaattt atggatttac tatgcttatt gcttgtgatt tgtctctctc ccattccctc 180

gag

183

<210> 641

<211> 322

<212> DNA

<213> Homo sapiens

<400> 641

```

gaattcgcgg ccgcgtcgac tgcacattca aaggataact attttatttt tgggtcaagat 60
acatttttaa ctgtttgcta ggataaagtg ataaaagaca tttagcccta attaattatc 120
tgccagtaaa atgaaacatt gttctgcctt ttcatttctg tatttaattt actactttca 180
gtactatgtt ggctgaaga catctaagct ctctcaagat acggaggtag ggttccatga 240
cattttcttc ctatctgtca gttttgaaac ttcaaagcg tgtgagatac atgtgtcctt 300
aaaagagtct ccggaactcg ag                                     322

```

<210> 642

<211> 148

<212> DNA

<213> Homo sapiens

<400> 642

```

gaattcgcgg ccgcgtcgac ccgtcattga attctagacc tgcctcgagt gtggagtga 60
tactgatcag agctttacta gaatttttct ctctcttttt aaaactaaaa cgtggaaaac 120
taagaagatg ttaaggtgg ttctcgag                                     148

```

<210> 643

<211> 326

<212> DNA

<213> Homo sapiens

<400> 643

```

gaattcgcgg ccgcgtcgac acctgtcatg tgtgcgcacg tgcattggtg tcgccgagga 60
gcggcccagg attgcgtga ccagtcctt ctccaagctc ttcaaggacc tgggcctgcc 120
ggcccgcgcc gtaagcacca cgctcgggtg caggggtcaac gtggccatct gcctccaggg 180
cacagctggc ccggacccca caaccgtcta cgtggacatg cgggcactgc gccatgacag 240
ggttcgtttg gtagaacggg gttctccgca cagcctgcc a ttgatggagt ctggaaagat 300
ctcccccgcc gtgaaggcca tcatcg                                     326

```

<210> 644

<211> 130

<212> DNA

<213> Homo sapiens

<400> 644

```

gaattcgcgg ccgcgtcgac cccctctact acttttgaa taattttctt tcattttttt 60
tcctagctgt cccctggcgt cctcaccaac ttttcttaga gacatggtct cactctgtca 120
ctggctcgag                                     130

```

<210> 645

<211> 559

<212> DNA

<213> Homo sapiens

<400> 645

```

gaattcgcgg ccgcgtcgac ccatgaacag gatccgaaag tttttccgag gaagtgggag 60
agtcttgga tttatctttg tagcttctgt catctggctc ctctttgaca tggcagctct 120
ccgctctca ttcagtga tcaacactcg ggtcatcaag gaagacattg tgaggaggga 180
gcggatagga ttcagagttc agccagacca aggaaaaatt ttttacagca gcataaaaga 240
gatgaaacct cccctaaggg gacatgggaa aggggcatgg ggcaaagaga atgttagaaa 300
aactgaggag agtgtgtca aggttgaggt ggacttgagc caaacccaga gggaaagaaa 360

```

```

aatgcagaat gccctgggaa ggggcaaggt tgtgccgttg tggcatcctg cacatctgca 420
gacctcccct gtgactccta acaagcagaa gacagacggg agaggcacca aacctgaagc 480
ctcctctcac caggggacac caaagcaaac gacagctcag ggggctcaa agacctcatt 540
catagcagca gcactcgag                                     559

```

```

<210> 646
<211> 215
<212> DNA
<213> Homo sapiens

```

```

<400> 646
gaattcgagg ccgcgtcgac agtatgggaa atgttggatt tttaaaatgt tacacaaatt 60
tctttatgat aggacttctc agagctttta gcattctaata gcagagtggg aatgtgaatg 120
gcaggattca gtataatcag cacgtcccaa ctctatctga acacagaact cttgttctgc 180
atatcatcga ttgacacacc ctggaacaac tcgag                                     215

```

```

<210> 647
<211> 123
<212> DNA
<213> Homo sapiens

```

```

<400> 647
gaattcgagg ccgcgtcgac ctcctcgggc tatccccaaa ctgccacttt taactcttga 60
agtaaataaa taatctttgc tggcaggact atgctgaatc tccttaggca ctatctactc 120
gag                                     123

```

```

<210> 648
<211> 149
<212> DNA
<213> Homo sapiens

```

```

<400> 648
gaattcgagg ccgcgtcgac gggggaagta gaaagagagg cattccaggc atgactggag 60
taaagaaaaag gaacatgttt tgtttctttg agactgtaac cagcctttgt gctgcagcta 120
tatttgtgga aaagatcggg ggcctcgag                                     149

```

```

<210> 649
<211> 503
<212> DNA
<213> Homo sapiens

```

```

<400> 649
gaattcgagg ccgcgtcgac tgccgtggcc tgcttctctga cccgcgggga cctctgggtc 60
agctgggaga gcgggggtccg ggtatttgat gagctgctcc tggatgcaga ttccagcgtg 120
aacgcaggca gctggatgtg gctgtcctgc agtgctttct tccagcagtt cttccactgc 180
tactgccctg tgggcttttg ccgtcgacag gacccagtg gggactacat caggcgatac 240
ctgcccacaa tgaaagcgtt cccctctcga tacatctatg agccctggaa tgccccagag 300
tcaattcaga aggcagccaa gtgcatcatt ggtgtggact acccacggcc catcgtcaac 360
catgccgaga ccagccggct taacattgaa cgaatgaagc agatttacca gcagctttcg 420
cgctaccggg gactctgtct actggcatct gtcccttctt gtgtggaaga cctcagtcac 480
cctgtggcag agcccagctc gag                                     503

```

```

<210> 650
<211> 258
<212> DNA
<213> Homo sapiens

```

```

<400> 650
gaattcgagg ccgcgtcgac gagagtccgg agtgcctacc taaattacta agacaataaa 60
ggacatacaa aagaagataa tcaaatgtta ctttgggtac ttgaacactt gctaagagca 120

```

tgcacccctgc agtcagtaac attaccatct atactcagag ggcaaacgct aatttcaaatt 180
 ccagagcaat gtcaaggatt tatcactgca acccaaagta tctttgctat caaagacagt 240
 gggggcataa aactcgag 258

<210> 651
 <211> 175
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (128)

<400> 651
 gaattcgagg ccgcgtcgag tcgattgaat tctagacctg cctcgagtga gcgaatcagt 60
 gaaaacgag cttcatcatg ctcttctcca gtgtgcctgt tttccacaga tacagctttt 120
 attctgtnac ttcttctcca ctccctctca taccatcccc acccacaacc tcgag 175

<210> 652
 <211> 197
 <212> DNA
 <213> Homo sapiens

<400> 652
 gaattcgagg ccgcgtcgac cctaaaccgt cgattgaatt ctagacctgt ctcaaaaaaa 60
 aaaaaaaaaa aaggagagaa aagaaaatgt tgtatatattt actttgcata accataattt 120
 atatgtcttt tgttcttctg tgggtgtcca tgaaaaaatt gactgcttta gctcacaact 180
 caactgccac actcgag 197

<210> 653
 <211> 206
 <212> DNA
 <213> Homo sapiens

<400> 653
 gaattcgagg ccgcgtcgac aggtcgctccc atttccttga gtggaccctt ctttctccaa 60
 atcacctaag agggaaaacta agttatttct gacttttttc tttactttat ttcccccagg 120
 ggaaaccagt catgaaattt aagacactct gtctacttag catttcttct ccttttatta 180
 tttccaccat gccccaattct ctcgag 206

<210> 654
 <211> 213
 <212> DNA
 <213> Homo sapiens

<400> 654
 gaattcgagg ccgcgtcgac tttttctttt tttttttttt ttatcctaga cctcaccctt 60
 ataatacatt taggattacc actgtgaggg taaaaccgtg cattgagttg acattattta 120
 atgttataat tgattttttt aaatgatgtg gagcttttgg gtctatttgt ttattcgatg 180
 ttgctacaag tttgttactg tgagttactc gag 213

<210> 655
 <211> 207
 <212> DNA
 <213> Homo sapiens

<400> 655
 gaattcgagg ccgcgtcgat aaccgtcgat tgaattctag acctgcctcg agtttttggg 60
 cttgagaaag acaattgtct gactctgcct tgtctagaga tatttgccat gggaattcaa 120
 tattttgaagt ctgtcatatc ttatttgccc atgatgattg tatttaataa cttcgaagaa 180

aataaatgta tcccacaacc cctcgag

207

<210> 656

<211> 337

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (26)

<220>

<221> unsure

<222> (32)

<400> 656

```

gaattcgcg cgggctcgac cgggncgcg tngacctgcc accccagggg gaatggcgaa 60
gccctccacc aacatggcag cccacagagg ctactgagga gggtggaggg ggcctcaggt 120
ggaaggatta gcctggccag gcacagagtc cctgaaaagg gatgagaagt gaagaaaacc 180
tgggataggg tggagtgaga gctcgccatt tctctgccaa gcaggacgca agccatcttc 240
tgcaagcagg aggtggagaa gtgaggaagg gtgaagggtt ggcctgagta gagtagtcag 300
tgtggggcca agaaaaggga ccagggacga tctcgag 337

```

<210> 657

<211> 199

<212> DNA

<213> Homo sapiens

<400> 657

```

gaattcgcg cgcgctcgac aaatgccaca tgtgaagatt ttcttgcaat ttgcctcgt 60
gttatccttg ctctctgtgg tatctagagc cccagtcatt gtgtcattat gggactctaa 120
cagttgctgc tcaatgacac ctgcagacac tgagttcagc ttgtgccctc cgctggatca 180
gtctccactc cctctcgag 199

```

<210> 658

<211> 335

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (297)

<400> 658

```

gaattcgcg cgcgctcgac cctaaaccgt cgattgaatt ctagacctgc actcgagtct 60
gggcaacaga gcgagactcc atctcaaaaa aaagaggtag atcagctctt gtcatttacc 120
tgctgtctct ggacttgctg accccaccca tcgctcctct gctttgcttg atcccttcag 180
gcttctcttc aagtctctct gcaaagatgc ctgcctctga aactcaagt ggctccactt 240
gtccctcctt tccctgctg ttactgtacc tgctactgtc cccccagggg gagcttngcc 300
tctgtttgtc ttccatcccc agcaccaaac tcgag 335

```

<210> 659

<211> 152

<212> DNA

<213> Homo sapiens

<400> 659

```

gaattcgcg cgcgctcgac ttctctgcct cgagagtcta tagtatgcat cccattcatt 60
ttcttctctt gattattgtc atctttccct ttgccaaatg ggcagttatt gtttcaggga 120
gagaagctgc tcattggcca atcattctcg ag 152

```

<210> 660
 <211> 296
 <212> DNA
 <213> Homo sapiens

<400> 660
 gaattcgcgg ccgcgctcgac ttgctttgaa gtaagtctca ataaggcaat atatttttagg 60
 gcatctttct tcttatctct gacagtgttc ttaaaattat ttgaatatca taagagcctt 120
 ggtgtctgtc ctaattcctt tctcactcac cgatgctgaa taccagttg aatcaaactg 180
 tcaacctacc aaaaacgata ttgtggctta tgggtattgc tgtctcattc ttggtatatt 240
 cttgtgtaac tgcccattgg cctgaaaata ctcatgttaa gcctgaaaag ctcgag 296

<210> 661
 <211> 430
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (41)

<400> 661
 gaattcgcgg ccgcgctcgac gacctgcctc gaataagtgt ntattatacc ccaatattag 60
 aaggaagaaa taaaagtaaa agataaagca caccagtgcac aaaatggata tgtttccac 120
 catgaatgca tatctcgttt gtggcagttt aaatattaca ctttgcttca atgctgtctg 180
 ctgggtacaa atagcccagg gccctgctcc tgatcacagc tcaaaggaag gctgcctaca 240
 tttatgtttg tgccctaagt attgtataag tccatgccct gagatgttac tcatcccagt 300
 ttctgttttg ttggtaaaaga gggagtgtga cctgttagag tttcatttct tctctcccat 360
 acattgactc atattggtga ttatgtcaaa aactacttaa tttgtataaa ggcaccccca 420
 acagctcgag 430

<210> 662
 <211> 176
 <212> DNA
 <213> Homo sapiens

<400> 662
 gaattcgcgg ccgcgctcgac gcattgtgtt taaatttaac attccttaga gaaaccccag 60
 aaatctcatt tatctttggc agatatcctg tgcagcaaaa atcaagtga tttccctctt 120
 cccactcct caatttaatg ctgtactcaa aatggctaaa cgcaatactt ctcgag 176

<210> 663
 <211> 326
 <212> DNA
 <213> Homo sapiens

<400> 663
 gaattcgcgg ccgcgctcgac gtcgattgaa ttctagacct gcctctgttt cttctctcgt 60
 gtaatcgcaa aaccattttt ggagcaggaa ttccaatcat gtctgtgatg gtggtgagaa 120
 agaagggtgac acggaatgg gagaaactcc caggcaggaa caccttttgc tgtgatggcc 180
 gcgtcatgat ggcccggcaa aagggcattt tctacctgac ccttttcctc atcctgggga 240
 catgtacact cttcttcgcc tttagtgcc gctacctggc tgttcagctg tctcctgcca 300
 tccctgtatt tgctaccatg ctcgag 326

<210> 664
 <211> 201
 <212> DNA
 <213> Homo sapiens

<220>

<221> unsure

<222> (176)

<400> 664

```

gaattcgcgg ccgcgtcgac agttgggctg atggtcaggt ggctatcaga gggtaagcaa 60
aagatgtttg gtaaaagagc aacccccctgg ccccatctac caagaatgaa gaaagtaggt 120
gccatgttgt aatttcagct gacaagaagc attagcatta tcgcacactt tgtganttaa 180
gtaatgattt aattactcga g                                     201

```

<210> 665

<211> 132

<212> DNA

<213> Homo sapiens

<400> 665

```

gaattcgcgg ccgcgtcgac ggtggctact gtagatttga gctggcataa cacagtgtgt 60
tcactaagtt ttatgagcat aaacattaaa atgttacata aaatatacca taatttactt 120
cactcactcg ag                                     132

```

<210> 666

<211> 469

<212> DNA

<213> Homo sapiens

<400> 666

```

gaattcgcgg ccgcgtcgac accctattaa aaaggaggag ggcagtattt tgggattttt 60
aaggaccttg aaattaactg atagtttgaa acatatagca gagaactgat aatctttttt 120
taggtcatga aagtaaaaatg tttaagatac aatatttttg gtcttttttag taaaggcatt 180
tgttttcagt aaagatactt ctttttttaa ggagagaatt taggattacc atttggttaag 240
agagtatatg gaacaagaga tattaataag agaagtagag taatggaaag atctgaaact 300
ggtattgagc tgtctcactc cgttgcccag gctaggggtga agtggcatga tctcggctca 360
ctgcaacctc tgcctcctgg gctcaggctg ggactacagt cacgtgccat catgcctggc 420
taattttttg tattttttgt agagatgggg ttttgccact agactcgag 469

```

<210> 667

<211> 140

<212> DNA

<213> Homo sapiens

<400> 667

```

gaattcgcgg ccgcgtcgac ctaaccgtcg attgaattct tagccgcctc gtcctgttaa 60
atttcaggat gtcaaacttg gcctcctttt ttgggttttc atttttctta gtattaccag 120
ggtgtgcaga gcggctcgag                                     140

```

<210> 668

<211> 690

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (139)

<220>

<221> unsure

<222> (287)

<220>

<221> unsure

<222> (305)

<220>

<221> unsure

<222> (310)

<400> 668

```

gaattcgcgg ccgcgtcgac gaggattgat tcagttagcc gtcttggcca acccaagtta 60
actgtacttc atcttagtct atgttggtgt tagaaacaac aaaaaggaaa aaaaaagcc 120
aaacagtaga gcaacaatnc attcattcat aaaagtaatt acatgccatc taactaatca 180
catggtaaat aattttaatg gtttagaagg gtatgaaaga aaaagtccca cccctcttct 240
tcccagcctg tccccagat gtgaccactg ttaacatact tgtgtancct tctagatata 300
tatanttgtn tccttttaaa aaaattatac agataggatc ggagttcaca ttttgtttg 360
catcctactt tttcacttgt tgataaacca tagaactctt ttcataagca cacatataga 420
tttagcatag tgttttaagt ggttacatag cattgatgtg ctctaagtta ttttaaccagt 480
cttctgttga tagctatttg ggttgcttct gttttttagg tattacaaat aaaaataaaa 540
aaggacatcc tgatagatat ttttctgcat agttatgcaa gtaagtccat gggatcaaca 600
tctatccatg aaatggctat gaattctaaa tttttatagg tgtttctgta ttgcttacta 660
aaaaaggtaa tgccacttta cgtactcgag 690

```

<210> 669

<211> 403

<212> DNA

<213> Homo sapiens

<400> 669

```

gaattcgcgg ccgcgtcgac gagtgaggtt gcggtctggt agtagtatag tgatgccagc 60
agctaggact gggagagata ggagaagtag gactgctgtg attaggacgg atcagacgaa 120
gaggggcgtt tgggtattggg ttatggcagg gggttttata ttgataattg ttgtgatgaa 180
attgatggcc cctaagatag aggagacaga atatgagtag agcggcagcg aggaggaaga 240
tgacagccat ggagaggaag gagagccaag ctccatcatg aacgtgcctg gagagtcgac 300
tctacgccgg gagtttctcc ggctccagca ggaaaataag agcaactcag aggctttaa 360
acagcagcag cagctgcagc agcagcagca gcacggactc gag 403

```

<210> 670

<211> 441

<212> DNA

<213> Homo sapiens

<400> 670

```

gaattcgcgg ccgcgtcgac gttggatgaa gaaatggtaa aaactagagc aaaagtctta 60
aggagcatat atgaattcct cagtgcagaa aaaagggaat ttcgttttca gttgcgaggg 120
gttgcttttg tgatggtaga agatggttgg aaacttctga agcctgagga ggtagtcata 180
aacctagaat atgaatctga ttttaaacct tatttgtaga agctaccttt agaacttggc 240
acatttcacc agttgttcaa acacttaggt actgaagata ttatttcaac taagcaatat 300
gttgaagtgt tgagccgcat atttaaaaat tctgagggca aacaattaga tcctaataa 360
atgcgtacag ttaagagagt agtttctggt ctgttcagga gtctacagaa tgattcagtc 420
aaggtaggga gtgatctcga g 441

```

<210> 671

<211> 175

<212> DNA

<213> Homo sapiens

<400> 671

```

gaattcgcgg ccgcgtcgac ggggagactc atagcacctt aacatgaata tgaaactttg 60
cttaagggaa aaaaagaagg ctgggaaaag catttccatt ttgatgatga tgatgatagt 120
gatgatgatg atggtggtgg ctaaacctta ccaatgcttc cttagagctc tcgag 175

```

<210> 672

<211> 333

<212> DNA

<213> Homo sapiens

<400> 672

```
gaattcgcgg cccgcgtcgac gtcgacgcgg ccgcgaattc gcggccgcgt cgacacagtg 60
gggaaaacca tggaggccca cacatggatt cttcaacact atagcaaaaa tgagacacac 120
atcatttttg ctcagtttta ttggccagag caagtcttgc agcgaaagct aacttgaaag 180
agtaaagtct gatcatcctg atacctggaa taggacctcg atattggtaa atagtcatac 240
acatttcatt gttgcatacc aacagacaca cactcacaca cgtatagaca tttagcctta 300
agttcaaata tgaaattgac cagaggactc gag 333
```

<210> 673

<211> 354

<212> DNA

<213> Homo sapiens

<400> 673

```
gaattcgcgg ccgcgtcgac ctctgtcgaa aaaaaaaaaa aagaaaaaga aattagcttt 60
ttccttggga taaaccctaaa aatattagag gtttggaaac aaatattatt ccattttatt 120
ggtttttaat cattttgtaa tatgaattat ttttgtgtac taataaaaaat aacaacatcc 180
cagaaatgtg agttttcttt aattattttg atgtccctct tgtggtttgg attggctcat 240
ccccttactt cctatatatt cctttcaggt tcctacagtg tggggtcttg cagccagcct 300
gccctcactc ctaatgatc attctccacg gtaagaaaaa gcccaaccct cgag 354
```

<210> 674

<211> 291

<212> DNA

<213> Homo sapiens

<400> 674

```
gaattcgcgg ccgcgtcgac atcatgttct aacatgcttt ctcagttacc tattttttat 60
gtttgtgtgt tattatcagt atcccttgct agaagcataa gctcactggg gcagggttct 120
ttgtctgctt tatttagtgg tgtataccaa ttgcctagaa cagtgcctgt aagagaacgg 180
tcctcagtga gttggatctg ccaggaggga tctggagtg tgggtgcaga agtaaaagaa 240
atgatgatgg ctttggatgg attcacatat cagagcataa ggaatctcga g 291
```

<210> 675

<211> 159

<212> DNA

<213> Homo sapiens

<400> 675

```
gaattcgcgg ccgcgtcgac gagcatgagg agttattttc ttttcttttt cttttacttt 60
tttttttctt ttcagacaag atcttgctgt ttcacccagt ctgcagtaca gtggcatgat 120
catggctcac tgcaagcctg catctcccg tccctcgag 159
```

<210> 676

<211> 274

<212> DNA

<213> Homo sapiens

<400> 676

```
gaattcgcgg ccgcgtcgac tgaattctag acctgcctcg agatctttgt gagagcagta 60
ttttctgtgt tttcttttta atttacagcc tttcttattt tgatattttt ttaatgttgt 120
ggatgaatgc cagctttcag acagagccca cttagcttgt ccacatggat ctcaatgcca 180
atcctccatt cttctctctc agatattttt gggagtga aacattctct catcctactt 240
agcctaccta gatttctcat gacgagtact cgag 274
```

<210> 677

<211> 100

<212> DNA

<213> Homo sapiens

<400> 677

gaattcgcgg ccgcgtcgac cgggcaggtg ttaagtttgt gaaaagtgat gcaatttgtt 60
atacattcaa atgcaaatta gaactagcgc cttactcgag 100

<210> 678

<211> 473

<212> DNA

<213> Homo sapiens

<400> 678

gaattcgcgg ccgcgtcgac ggtatctagc cctagaatgc ctagaacagg aagaggcagc 60
tggtgttctg caaaacttgg acaggggcaa agttgctgaa aaagttttgg tttaaccgga 120
agataagtgg aaaagagctt gtccatgaac ccagggttctc actctgttta cagaagtgtg 180
ttgagtacag ttggtgaagg aagaggtaac aaaaaatgct aaatatTTTA tccatgaaaa 240
tgacttccag aaaaggaaga atatgaacc cagaccgaag gggaaaagat agttaatagt 300
attatctaac ctggttggta ttgtaatga atgggtgattt taattagtca ttagccataa 360
tgatgtttat ttacagtata actcctgaat gctacttaaa taaaccagga ttcaaactgc 420
aagccagcca ggccgttcat tatttaaaac gttttaatcg gggctcactc gag 473

<210> 679

<211> 133

<212> DNA

<213> Homo sapiens

<400> 679

gaattcgcgg ccgcgtcgac tcgagggtgc tgtgttcatg cgtgtgctgt gttgtgtgct 60
gtgtgtgtgt gtgtgtgtgt gtctggcaag caaggctctg cacacacaca gcactttggg 120
aggccctctc gag 133

<210> 680

<211> 467

<212> DNA

<213> Homo sapiens

<400> 680

gaattcgcgg ccgcgtcgac cgatagtc aa ttocagaaac cgctatgaag ttcctctctg 60
caagagactt ccattccagtt gccttcttgg gactgatgct ggtgacaacc acggccttcc 120
ctacttcaca agtccggaga ggagacttca cagaggatac cactcccaac agacctgtct 180
ataccacttc acaagtcgga ggcttaatta cacatgttct ctgggaaatc gtggaaatga 240
gaaaagagtt gtgcaatggc aattctgatt gtatgaacaa cgatgatgca cttgcagaaa 300
acaatctgaa acttccagag atacaaagaa atgatggatg ctaccaaact ggatataatc 360
aggaaatttg cctattgaaa atttctctg gtcttctgga gtaccatagc tacctggagt 420
acatgaagaa caacttaaaa gataacaaga aagacaaaac cctcgag 467

<210> 681

<211> 361

<212> DNA

<213> Homo sapiens

<400> 681

gaattcgcgg ccgcgtcgac ccaggatgcc aactttgaat aggatgaaga ctacaacttg 60
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catagagatt atcgtagaga ataaggtaaa ggaacttctt gccaatccag ctaactatcc 180
ctccactgta acgaagactc tctcttgcaac tagtgtcaag actatgaaca gatgggcctc 240
ctgccctgct gggatgactg ctactgggtg tgcttggggc ttgacctgtg gatcttggga 300
gatccagagt ggagatactt gcaactgcct gtgcttactc gttgactgga gccactcga 360
g 361

<210> 682
 <211> 296
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (9)

<400> 682
 gaattcgcng ccgcgtcgac aacaggttga tgagctgcac tctgctgaaa ggagtctgca 60
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 tgaatgacag tgaatttgct gaatggtact tgtcaagatt ttatgattat ggaaaggaca 180
 gaattccaat gacaaaaaca aaaaccaata gaaacttcct aaaagaaaaa ctccaggaaa 240
 tgcagcagtt ctttgggcta gaagcaactg ggcaactgga caactccgaa ctcgag 296

<210> 683
 <211> 536
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (112)

<400> 683
 gaattcgcgg ccgcgtcgac ggcaacagca ccaataacag catccagacc attgattcca 60
 cccaagcact gttcctcccg attggagcgt ctgtctctct cctcgtcatg tncttcttct 120
 ttgattcagt tcaagtcgtt ttcacaatat gtacagcagt tcttgcaaca atagcttttg 180
 cttttcttct tctcccgatg tgcagcagtt taacaaggcc ctgctcacct cagaacaaga 240
 tttccttcgg ttgctgtggg cgtttcactg ctgccgagct gctgtcgttc tccctgtctg 300
 tcatgctcgt cctcatctgg gttctcactg gccactggct tctcatggat gctctggcca 360
 tgggtctctg tgttgccatg atcgccctcg tccgcctgcc aagcctcaag gtttcttgcc 420
 tgcttctctc agggcttctc atctacgatg tcttctgggt gttcttctca gcctacatct 480
 tcaacagtaa tgtcatggtg aaagtggcca cacagccagc tgacaatccc ctcgag 536

<210> 684
 <211> 136
 <212> DNA
 <213> Homo sapiens

<400> 684
 gaattcggcc aaagaggcct aggaaaacta taaagggtggc cgtacttact aatattttca 60
 gatgcactat ttattttgtt tagtttttct tactgtcttt tgcctattgc catgttccat 120
 ttccccaccg ctcgag 136

<210> 685
 <211> 660
 <212> DNA
 <213> Homo sapiens

<400> 685
 gaattcggcc aaagaggcct acatgggttcc aagaaactgc ataagcatat gaaataagtt 60
 gcagcctccc gacttatacc ctggtacttc tagtctaaaa caggatttga ctctactaat 120
 ccagccttat acaggatgct gtgttctttg ctcctttgtg aatgtctgtt gctggtagct 180
 ggttatgctc atgatgatga ctggattgac cccacagaca tgcttaacta tgatgctgct 240
 tcaggaacaa tgagaaaatc tcaggcaaaa tatggtattt caggggaaaa ggatgtcagt 300
 cctgacttgt catgtgtgta tgaaatatca gaatgttatc acaaacttga ttctttaact 360
 tataagattg atgagtgtga aaagaaaaag aggggaagact atgaaagtca aagcaatcct 420
 gtttttagga gataacttaa taagatttta attgaagctg gaaagcttgg acttctctgat 480

gaaaacaaag gcgatatgca ttatgatgct gagattatcc ttaaaagaga aactttgtta 540
 gaaatacaga agtttctcaa tggagaagac tggaaaccag gtgccttga tgatgcacta 600
 agtgatattt taattaattt taagtttcat gattttgaaa catggaagt cgcactcgag 660

<210> 686

<211> 381

<212> DNA

<213> Homo sapiens

<400> 686

gaattcggcc aaagaggcct acctaaaccg tcgattgaat tctagacctg cctcgagtct 60
 cagaagaaaa aacaacgaaa tatcttatgt taatctaaaa aaccttcagt gacctacttg 120
 atctcatttt ctaccatttt cctcctcttt ttctgaaata catcaacaca gagcactttt 180
 cctctccttt aatgcacaaa gatggcagga cttttgaatg ttacatttat ttatcttctt 240
 cttagagtgc ttcccttata caccatgtg acttgttcct cccttccttc tagtctttgt 300
 ttatatatat attattatca cagagggcta ggaaagaaaa caccactgc tgcgccccac 360
 actcatccac ctaccctcga g 381

<210> 687

<211> 202

<212> DNA

<213> Homo sapiens

<400> 687

gaattcggcc aaagaggcct atcgagggtt tgctggaaaa gtcgtgtgcc ctgcatttca 60
 gtaaatattg cttctttaa ggcagatacc tcagattgca acactcatgg tgttttcaac 120
 cttctgcata taaagtggga gcgtttacta tcttccagtg gcaaatcact tagacacaaa 180
 ggatgatata gaaagactcg ag 202

<210> 688

<211> 518

<212> DNA

<213> Homo sapiens

<400> 688

gaattcggcc aaagaggcct acttctatct atctcagacg ttcttttctt aaaagaagca 60
 agactcaggc acactgaagg tcatttccat gggacacact tgattgctta gaaaaacaaa 120
 ttgaaaaaat actttcttca gaaggaaaga tattgtttct ccagggtaaa atatttctga 180
 gggcttgact ctttccaatg acgcctttat gtaagctgtt ggagcagggc tcttaattga 240
 taagcagctg tggttaataat tcacaatgaa tagcatattt aaaacgtcaa ccagtggtg 300
 attcttatgg cagtatctga ggcgagagag accaaagcaa caatgacaat gaatcttttag 360
 attctggaaa ctcaggagaa gccacactat ctctagagtc accaccttcc ttttttaaag 420
 aaagagggaa ggttcccctc tccaaaggaa agtttgcttc ccaggtaacc gtgatctttg 480
 tgacctatta ctgatttcgt ttaaacagag tactcgag 518

<210> 689

<211> 293

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (75)

<400> 689

gaattcggcc aaagaggcct agcacattta aatagccact atactctagc ctaggcaaca 60
 tagcaagacc ccatnttaaa aaaaaaagt atatataatt tctactgaaac ttgccctaca 120
 agagtgggta taaattttta aaaatttaggc ctaaaaatag agtgatttct ttgtaattag 180
 aaattatacc tggattccat ttatctaaca tgctgctgaa gtattttgca agtatagtta 240
 cggattatac agtggtgggt ggtgtacat tattggtaag ggacaaactc gag 293

<210> 690
 <211> 500
 <212> DNA
 <213> Homo sapiens

<400> 690
 gaattcggcc aaagaggcct aggggtagca aggaggtggc ggggcgggta aggggtacggg 60
 cagtgggtgca gaaggggaaga aggttggttac gcaaggagaa ataaaaagga acttgaaaat 120
 aaaaaggagg gaggaggaaga gcaagctaag ggtactgtta gtgctcctgg cactccgtcg 180
 tggggccagc gttgccttga gaccctccac cctccctcag cctcaggaga attaggttcc 240
 agtccctcta ggaaggacag ggctgccagt gacaccagg aggaacaggc agtgcgcagg 300
 aaccctgggg cgccccagg gttgggggag ggaaggttgg ctggctagag ggcattgtgc 360
 caggagcagg atggggggcc aagctgggca gtgtccaggg tcagggagag ggtggaagac 420
 cctcggggtc aagcacagca gagatcgctg gggcagttca ctagggggtga ctgaagggtg 480
 gaaaggaggg gtggctcgag 500

<210> 691
 <211> 568
 <212> DNA
 <213> Homo sapiens

<400> 691
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 ttttttcagg gctcagaaaa agctctcttg tagtctagaa gacttgagaa gtgaatctgt 120
 ggataagtgt atggatggga accagccctt cccgggtgta gaaccaagg acagcccttt 180
 ctggcgagg cacaatatc ccactttacc tgggaagctt tcaggagcca cgcccaatgg 240
 agaggctgcc aaatctcttc ccacctctg ccagcctgac gccacgggga gcagcctgct 300
 gaggtctgaga gacacagaaa gtggctggga tgacactgct gtggtcaatg acctctcatc 360
 cacatcatcg ggcactgaat caggctctca gtctcctctg acaccagatg gtaaaccgaa 420
 tcccaaaggc attaagaagt tctggggaaa aatccgaaga actcagtcag gaaatttcta 480
 cactgacacg ctgggggatg cagagtcttc acgaggtggg ctccggggca ccgcagggcc 540
 aagactctct aggaccaggg acctcgag 568

<210> 692
 <211> 307
 <212> DNA
 <213> Homo sapiens

<400> 692
 gaattcggcc aaagaggcct actcatctct actcatccct tcagccactc aaacctgccc 60
 ttctctgccc aggtttctcag tcagaatgac ccagtgcca aaatacgatt cagaatgttc 120
 ctgtggcata gtcaccagc tcccttttat gtctccattg ctactcactg ggctatacat 180
 taccagcttg atctcccatc caccaacacc tctggacact tctatcagcc atctttcagc 240
 cttgcttgtt ttgcttccca gcctgggtcca ttgtttcaac aacgcttttg ctaacactaa 300
 tctcgag 307

<210> 693
 <211> 359
 <212> DNA
 <213> Homo sapiens

<400> 693
 gaattcggcc aaagaggcct agttaggccc gacatattgt gagaaaatgt ctggtaacct 60
 ttttaacagg tgattgctgg aatttgatga ttgcctccgt aaatgtggag gcacagggga 120
 cccgtgtctg ccgcgatgca ccctgctaac tggtctgttg ttttcgggtg caggtgcttg 180
 aggaatccaa agccctcgct cgctgcaaca tgaagatgga gctggagcag gccaacgaga 240
 gggagtgtga ggtgctgaag aaaatctggg gctcggccca ggggatggac tccatgttaa 300
 agtacttgca gaggaagatc gatgagttct gagtgtcggg ctgcccactg gatctcgag 359

<210> 694

<211> 474
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (57)

<400> 694
 gaattcggcc aaagaggcct agagatagct gtatttgatt tacaatgaac aagattnaca 60
 aaaaggggtg ggggtggtctt ggaactgctc ccagtcctccc cggactgggt ggggctctag 120
 ggcagcctgt ctgacagacc aggaccccag gatgtctggg ccccgacgta ggacttgacc 180
 tacgtctcac ttgacctttg acgtggggcc cagcagccgt gagtccaccc agagtgcccg 240
 cacccttggg gaggccggtg aggtcaggaa ggcacgtac cgctttttct ctcctccca 300
 tctcgtgggtg gacagacaga cataggatct gggaacttgc cctggggggc acaggccctc 360
 agatccccca ggggcccac ctagggcatg gaggcggctg ctgggtgcgtg ggcggaggcg 420
 gaggccagct gccccagcg tggcagcgta aggcacattt tcaaactact cgag 474

<210> 695
 <211> 180
 <212> DNA
 <213> Homo sapiens

<400> 695
 gaattcggcc aaagaggcct aggtatttgt tgttccttta ttctgttgat gtgaaacatc 60
 atgactattg acttgcaaat gccaaaacat ccttctatcc ccgggacaaa tcccacgtta 120
 tattgctgta ttatcttttt gatgtgttgt tggattcact ttgcttcgac tgggctcgag 180

<210> 696
 <211> 136
 <212> DNA
 <213> Homo sapiens

<400> 696
 gaattcggcc aaagaggcct acacgacagg aaacatgcag ttggggatga tgctcaagtt 60
 gttcaaattg ttactttcta ctttggagtc ttcaattaag gtgccagggc tagtgactcc 120
 tgggaattgt ctcgag 136

<210> 697
 <211> 290
 <212> DNA
 <213> Homo sapiens

<400> 697
 gaattcggcc aaagaggcct aaagccagaa acctgtgtca tcttttcacc ccaccttcaa 60
 tcaacaagtc ctcaatcaac aagtcctact gactgcacat cttaaataata tctttatcag 120
 tccacaagtc cttccaatta tatttcccaa gtatatctag aacttatcca cttatatccc 180
 cactgtact acctagttt agggctatat tctcttgaaa aaaagtgtcc ttacttcctg 240
 ccaatcccca agtcattctc cagagtaaaa tgcaaatccc attcctcgag 290

<210> 698
 <211> 152
 <212> DNA
 <213> Homo sapiens

<400> 698
 gaattcggcc aaagaggcct aaaattaacc aacctcaaaa attatatatt gaagcttcct 60
 ctactgtaag gaaatccatg aaactgttaa caactgttgc cttttggatg ttgccagtag 120
 cccttgggca gaacatgtct tttcgtcacc at 152

<210> 699
 <211> 619
 <212> DNA
 <213> Homo sapiens

<400> 699
 gaattcggcc aaagaggcct aagtgcctgt tcaaacagca gattcccagg ccttattttg 60
 gcctaaagaa ccagagtcta ggtggtggga cataggaatc tgcatttcag taaactttac 120
 acgtgattct tctgcacaca gtattgaaga gcaactagat taaattctag ttacaaaaat 180
 taccagtttt cttcaagaac taaatgatat gtcctttttt tttttttcaa agaggataag 240
 gctgctatct aaataaaata gctaaatgga gagtgaagaagg tggagcaggt tcattcagca 300
 gcattcttaa ttgagccagc attgacaccc agccagcagg cctttgcatt gcattcgggg 360
 accatgactc tgaatctgct taccaatcaa tctcgggtta atcaccaaaa gtgcagagca 420
 ggcaaaatgc agctgtttat caatctcaaa agctttggga cagtgtcata gttgaaagat 480
 gagacttaag aaaacagttt cttaaacttc ttaaaactta agaaacattg tttcataaaa 540
 caatattgag tgggcattct tctgcacagt gtgatgtctc aaccctggcc ctagtctcag 600
 tagaccatgc tgcctcgag 619

<210> 700
 <211> 287
 <212> DNA
 <213> Homo sapiens

<400> 700
 gaattcggcc aaagaggcct aaagtactgt gtatgggggt tgctatttcta aaaaacattt 60
 ttatttttgg aatttttagtg gatttttactt atccctcatt ggaagaatca attccttcta 120
 aacctgctgc ccagacgcca cctgcattcta tagaagtaga tgaaaatata gaattgataa 180
 gtggtcaaaa tgcagagaatg ggaccactga atatatcaac tccagttgaa ccagttgctg 240
 cttctaaatc tgatgtttca ccataatc agccagcgc actcgag 287

<210> 701
 <211> 106
 <212> DNA
 <213> Homo sapiens

<400> 701
 gaattcggcc aaagaggcct actttaaaaa agagcacttt atcacgacaa aggggtgcaac 60
 taacaattaa aatcagacaa tgctgtttct gcaccgcttt ctcgag 106

<210> 702
 <211> 191
 <212> DNA
 <213> Homo sapiens

<400> 702
 gaattcggcc aaagaggcct aggggataat aagaaaaaag tatgtacatg tttagtgcag 60
 gcacagctat cttttttttt tcaaataatt tcaatctaca gatgcagaac cacagatata 120
 gagggccaac tatatctgcc ttttttataa atacaaagca ggcaacaccc acaaagacat 180
 atttactcga g 191

<210> 703
 <211> 534
 <212> DNA
 <213> Homo sapiens

<400> 703
 gaattcggcc aaagaggcct aatggaggaa gagacctgtc ccaatgtgtc attcggtaga 60
 tctcactttc tcttagtacc tcatagtcatt tcatTTTTTCA cccccaacag acaagtggag 120
 actgatatta ttccctttta caatgtaaca aaatcaaagc ttagaaaacc aggggggtttg 180
 gaaaataagg aatttgtgtg ggattaaaat agaactttga gctcctggac cctgaattctt 240

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agcttctacc ttgcacttaa ataaatttat gctaacagat gtctctgcat cagataggac 300
tttttttttt cttttttaatg tcggcaagtc tcattgttac agctctctgg tctgcccagt 360
ttgggttacac ctggttttgag attccttgcc tatacccttc caactgaaga caagcacttc 420
ctactgtact tacagaactt tcatctatgt cttgggttaa tcttttgctt ttgttttaac 480
cgtttaccac ttctgcttta tattggtagg taatcttacc cccaaatact cgag 534

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<210> 704
 <211> 591
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (43)

<220>
 <221> unsure
 <222> (90)

<220>
 <221> unsure
 <222> (107)

<220>
 <221> unsure
 <222> (154)

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<400> 704
gaattcggcc aaagaggcct accaccagcc aaggcctagg agntgctgac ctggtcagcc 60
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aggttcatca gccctccccc atctgccccca ggcnttgta gggatcagc gggctcagaa 180
ctggcaggcg gtgcaagctc tgcttccctg ggccacactg agggctgggg ccagctccct 240
ggatgggggt ggagttttacc agcagcctgg ggacagcatg tctccttttt aggaaatgtc 300
cttggaggaa gagttcatgt gtggcgctgg tcagcagcta gtcccgcttc caggacactg 360
gtcagagtta ccgatgaggc ctgggggctc ccgcttggaa accctccag ctccctcccat 420
ctgccagac agagcgacag atggcaccaa tgcagtctgg ctccctcatt cctgcccagg 480
ggctgtggct tacggccagc accctgtacc tgggactcag cccttatccc ccctctgcta 540
tctgtgctgg gagaggggct tcggagggaa acagatatga ggacactcga g 591

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<210> 705
 <211> 694
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (554)

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<400> 705
gaattcggcc aaagaggcct agttttatatt tttccttta ttaacagtac tagtgacttt 60
gtgaaagaat atgagttact atttaggtat gcttacttaa ctacaatata ctacattgca 120
gtatttctga aacctaggac atacacatta tatataacaa ctctatatatg aaatatatat 180
tacattatat tcatttttaac ttttgaatct gcctatgatc atgagttgat tgaaatatta 240
tgtctttgct tatatcacc atcaccaacc tgctgcagtt aatctgggtc atctagtaat 300
aatcattagt gctctaattt gctttttata ttatcagctt cagtattgtc tttagaggat 360
tttagaattt tttaaagctc agacttagca aatgtaggaa agtgaaaact ttttttgaaa 420
cttttttggt ggtgtgacta atacaaagag gttcatatc aaagtgatct tgtttagctg 480
accactcaa tatctgaaga acaaaagagg tgcatatgaa tgtatctgtg attttccctt 540
gtaggactgt cacngtctat atttgctttt aaaaatatga ccaaggggct acttaagtgc 600
cacatgatct gaccaacaat aacaggctgc gtttcaaagg gccagtcctc tgaaaagcgt 660

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aagacagtga attacctagt tgtccccact cgag

694

<210> 706

<211> 544

<212> DNA

<213> Homo sapiens

<400> 706

gaattcggcc aaagaggcct acctaaaccg tcgattgaat tctagacctg cctcgaggat 60
gaccttagag gagagaccag aagaagaaaa gaataaggag ctgcccagta cacacctgcc 120
caccaacgct gggatcctgg cggccaccat cattggatct cttgctgccg gggcccttct 180
catcagctgc attgcctatc tcctggtgac aagggaactgg agggggccaga gccacagact 240
gcctgctccg agggggccagg gatctctgtc catcttgtgc tcggctgtat ccccgatgcc 300
ttcagtgcag cccagcacat ggatggcgac cacagagaag ccagaattgg gccctgctca 360
tgatgctggg gacaacaaca tctatgaagt gatgccctct ccagtcctcc tgggtgtccc 420
catcagtgc acaagggtcca taaaccagc cgggccctg cccacacccc cacacctgca 480
ggcggagcca gagaaccacc agtaccagga cctgctaaac cccgacctg ccccttact 540
cgag 544

<210> 707

<211> 181

<212> DNA

<213> Homo sapiens

<400> 707

gaattcggcc aaagaggcct agtggaattg gaaagggtgg tatctgattt ggttggtcag 60
gcaaattatt ctgctctga tttacaagg tgtgctgctg tggaattgga aagggtggtc 120
ttggtagctg gggaagggga tgaaagtggc gattagggat tgcatactgt gcggtctcga 180
g 181

<210> 708

<211> 103

<212> DNA

<213> Homo sapiens

<400> 708

gaattcggcc aaagaggcct agttagattt acttaaaagt ttgaaagctg cttgtagaga 60
ctacaataca atggtaaaac tttttccac aagagcactc gag 103

<210> 709

<211> 463

<212> DNA

<213> Homo sapiens

<400> 709

gaattcggcc aaagaggcct agtgacaggc agccttagtg agaatgacct acttcgtttt 60
aagcctcatc ccagcaatat gatgagcaag ttgagctctg aggatgagga ggaagatgaa 120
gcagaagatg accagtctga ggcttcaggg aagaaatctg tgaaggagat gtctaagaaa 180
tatgttcctc cagccttggg tccagtacat tatgatgaaa cagaagctga gcgggagaag 240
aagcgtctag aacgagccaa gagacgggca ttgagcagct ctgtcattcg tgaacttaag 300
gagcagtact cagatgctcc agaggaaatc cgtgatgctc ggcaccccca tgttaccgc 360
cagagtcagg aggaccaaca caggattaac tatgaggaga gcatgatggt gcgtttgagc 420
gtcagtaagc gagagaaagg acggcgaaaa cgagcggctc gag 463

<210> 710

<211> 167

<212> DNA

<213> Homo sapiens

<400> 710

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gaattcggcc aaagaggcct atttttggtt attcttccat agtctagatt tgccaaatga 60
aggcttttgc cttcttcttt ctgaatcttt ctgactttgt ggtggggaaa gaagatgatg 120
aggcaggctc atcccacagc tggaggcttt ctgagagcag tctcgag 167

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<210> 711
<211> 112
<212> DNA
<213> Homo sapiens

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<400> 711
gaattcggcc aaagaggcct actgaggag gctgcagggc tggctctaga gtttcctttt 60
tcagtcttaa cctgggtgacc agcttcaca gaaattggca tgggtgactcg ag 112

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<210> 712
<211> 418
<212> DNA
<213> Homo sapiens

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<400> 712
gaattcggcc ttcattggcct atttttagta attgtacatt ttctattcta gagttttcta 60
taaatattgag gcttgccctc tcaaaaaaga aactatgcag ccattgaatg aaatgtcttt 120
ggggtagcgt gtgactggaa tgtttgtag aaatttggtc acactatcaa atattgatat 180
cttggagcca gcagaagagc agattttggg aggtggtaat aacaaaattt aatttcttcc 240
caacaactta attttctcat ttattttaca gaatagtagt gaaatatttg atgaaacttt 300
gtattttggt agcactacat agaaaatgtg ttttagattt atgatgatca tatttctcac 360
caatgtaatt tcagtctcag cagtgatatt caaacttagg gaaagggaca gactcgag 418

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<210> 713
<211> 305
<212> DNA
<213> Homo sapiens

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```

<400> 713
gagcatattt ataatagctt tttaaaaaag tttttggttg ctatttccaa catctttgtc 60
atcatttggc ctgtttatat tgactgactt atctgctgag tatgggtcac agcttcctac 120
atcttaacgt gtttagacac tttttattct atgctacaca ttgtggatgc tacttttttg 180
agatttctagg ttcactgctt ttgaaacagt ttttctcccc tctttttggt gggctgtcag 240
ctgttacttc ttgtagctgt cagaatactt gcctctggct actatattct ccaccccccc 300
tcgag 305

```

```

<210> 714
<211> 316
<212> DNA
<213> Homo sapiens

```

```

<400> 714
gcgattgaat tctagacctg cctctccccg tcgactgtct ttcttttaaag caactgcaat 60
ttcttccctt acttccctac tgtctgttgc tataatttgc ccattgtgaa ccactgtgta 120
attctgtctt aggtattcca tgaatccatt cacatcttca ttttaagtact cttttttctt 180
tttgttcttt ttatgttttg cttgggggtgc atcatttttg agggatagcc tattggcttc 240
aagttgttta cgcttttgta ggttttggct tgttccctca aaggatccct tcttcatgtc 300
ctcccatgaa ctcgag 316

```

```

<210> 715
<211> 374
<212> DNA
<213> Homo sapiens

```

```

<400> 715
gaattcggcc ttcattggcct agtgagaagt accatattat tcccttatac tatataatat 60

```

```

aaagagaaca ggtattcaaa ctggaatata aaagtaatga agccttttta tgcattgcac 120
tcatcattcc ctccctcaga ggtggtgacc tgcagccatg atggaaagt ctctctgccc 180
ctctgccctc tgaggtcctg tctggatctg tgcattaga acttgggcct gttgggagag 240
gaggcgagg cctgaaagca gtttacataa agctttcagt aatggttggt ttttaaacag 300
gcttgctatg tgctggtagc ttctttgtgc atcttgccca gacaattaaa aatatttgct 360
ccatgtccct cgag 374

```

<210> 716

<211> 369

<212> DNA

<213> Homo sapiens

<400> 716

```

gtcttttttaa ggatgggtgct gctccactgg tgcctgctgt ggctcctgtt tccactcagc 60
tcaaggaccc agaagttacc caccgggat gaggaacttt ttcagatgca gatccgggac 120
aaggcatttt ttcatgattc gtcagtaatt ccagatggag ctgaaattag cagttatctc 180
tttagagata cacctaagag gtatttcttt gtggttgaag aagacaatac tccattatca 240
gtcacagtga cgccctgtga tgcgcctttg gagggaagc tggcctcca ggagctgcca 300
gaggacagga ggggggaagg ctccaggat ctggaacctc ttgagcagca gaagcagcag 360
atcctcgag 369

```

<210> 717

<211> 587

<212> DNA

<213> Homo sapiens

<400> 717

```

gaattcggcc ttcatggcct agggacatct tggtagatt taggtgaata atagttttaa 60
aatagcaaca ccagctgcca ttgacagagc ttgcaagcca ggcccttccc aagtgtgatc 120
gcatttcattc ctccaggcaac tttatggggg aaacaattat tgtcccgttt ccagatgag 180
gtaactgagt cctcagcatg ttttcagcca gcctcacagc tgccccacc cctggcctcc 240
aaacagaggg gctggcttac catttcaca aagcagtgtg aagctggaac aggtgaggag 300
ctctgagttt cgcccggtgt ctggggagtg ggctcaggag acacgctggg ctgtgggttg 360
gcacactgaa aggtacaggc cggctgagtc acagcaccct ctctgggctg gcaacagagc 420
cgctccacccc acacctgtag gtatgccaac gaggggccgc tggggccatc tgcagcctgt 480
gtgctgccag cagcgggagg aggcaggaag gggcctcctg cccggtgccc cctgctggcc 540
aggctcccc cactccccac agggaggacc tccccacct cctcgag 587

```

<210> 718

<211> 599

<212> DNA

<213> Homo sapiens

<400> 718

```

gaattcgctt tcatggccta cctgcctgat ggctctctg acaaagttac tgggcccagc 60
aaaaggaaaa gggaaactgt tttcaggcc catcgagac gtaaaatata ccctcttgaa 120
aaaatagaca taacaaaaac ttaagtaaaa aaaataaata aaaagactaa atgtgcatgt 180
ttgagatttt tgccttctgt ccctttttgt gtccatgggc ccatgtgtcc gtggagtggg 240
tctgaccatt ccaggatgaa tttaaaatca cccctctgca ctttggaatg ttggggacag 300
agctgtttcc ttcagactca tttagaaaatg accagccaac tgtggccatt ttcttctcct 360
ataaaggctg ggggttctaag catttgtttc atggtgaaaa gtggattcaa cctgctcttc 420
ttcttctctg gtagtcactt ttttttact ctacctctgc ttactcagct gtctaaaaac 480
gaaaaatgct cattctgatc cacaatacta gccatttctt gaagacattt tttttactca 540
atcttaaatg gatcacatgg ctctgttgtt cttcatttgt tttctgcaat cctctcgag 599

```

<210> 719

<211> 508

<212> DNA

<213> Homo sapiens

<400> 719
gaattcggcc ttcattggcct agcattgttt agctttaaaa tgcattcttc tgagcttttc 60
tccccattaa caccagctgc cttacatcct cttcttacc ttgattttta tcccatcatt 120
gatcctgctt cattcccagc agtcagcccg tcgcaggcac cgagagggtca aggttcttgg 180
gtccacaata tttccagact ccacacaacc cttcagggtcc tggcctgggc aaccagctga 240
tgcggtgagc ttttctcatc atctcctgtc ttcacttcag atctgtcgcc cactgtgagg 300
ggattcctgt ctcaccatt gcctctctgt ggggtgcttt tggacttggt ttagccacag 360
agcattcct gtcagaaatc gggaaactac tatgctgtac ttactgtccc ccacttcccc 420
caccgggt gtctgagaaa ctctcagggg tcctcaaaga acagtttgaa aagccagtct 480
ctttgcccc acatcagcct gcctcgag 508

<210> 720

<211> 358

<212> DNA

<213> Homo sapiens

<400> 720
gaattcggcc ttcattggcct actctttcaa atagatttca ggcctctaga gtctttcaac 60
cctcacattc aggaataatt ttatgtaaat tttcatgctt tataatgttc ttactttttt 120
ctattcaatt ttgtctatat attgatgatt aagatgtatt ttatttattt ttatccatag 180
ctttttccat ataagtatgt atcttagggg cagaactgct gaaagagaca aactcagcca 240
aaaacacttg gaaagcatat tttggtatct gcattgcttt gcataatctaa attttcccat 300
aaagtaataa agtaaaatgg ttgcagcagg aaagaagttc atcttcattg ctctcgag 358

<210> 721

<211> 298

<212> DNA

<213> Homo sapiens

<400> 721
gaattcggcc ttcattggcct actttgtcct tgtttgtttt ctttcaatag tcaggtcctt 60
cttccatagg gctgctgcag tttgccggg gttcacttca ggccttattc atctgattca 120
ctcctgtgcc tgcagatatg attcaaggag gctgaagagc agcaaagatg ggtgcctgct 180
ccttcttctg ggacctctgc ccttgagggg gactaagctg atgttagtag gatcgctcct 240
gtataggggt tgtctgacaa ccccggttgg aggggtctcac tcagttgggc ggctcgag 298

<210> 722

<211> 488

<212> DNA

<213> Homo sapiens

<400> 722
ggttttgcat ttaaattttt ttagaagca gaattctaac ttatcttaat gatatttacc 60
tatccttttt gcaactcaca actgactttg tcacagaggt aatgcatctg cttgcaggaa 120
gtagctgtag gctcagtacc tgttgtttga gtcagattta gcagatttgg tttttaagct 180
tgtgggtttg tgctaatttg ggcagaatat atttattata tatgtgtgtg tgtatgtgtg 240
tatgtgtgtg tctgcatatg taatacatgt acataaacac acatgcatgt gttcatcctc 300
tgacacaccc acacaacacc aacaacatt tcttctatag gctttttatc tcaactgaca 360
ctgttttttt tcccaaataa atttgacaca ggcagaaagg tgggtgaact ctcagaactt 420
ttgggtgggt gatattcatc tgaccagtga gctctgaaat ggtttcccta cacagagtgg 480
ccctcgag 488

<210> 723

<211> 406

<212> DNA

<213> Homo sapiens

<400> 723
gaattcggcc ttcattggcct atgctcaagg aattatagga ctaattctct tttgtgtgtg 60
tgtattttat tccagcatcc gtacttcaaa caatagtcag gtaataaac tgactctaac 120

```

aagtgatgaa tctacattaa tagaagatgg tggagctaga agtgatggat cactggagga 180
tggggacgat gttcaccgag ctgtagataa tgaaagggat ggtgtcactt acagttattc 240
cttctttcac ttcattgctt tcttggttc actttatate atgatgacce ttaccaactg 300
gtacagggtat gaacctcttc gtgagatgaa aagtcagtgg acagctgtct gggtgaaaaat 360
ctcttccagt tggattggca tcgtgctgta tgtcttgaca ctcgag 406

```

<210> 724

<211> 332

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (121)

<400> 724

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ggctgttgat atctacatta atgactatgt ctatgtctat gttgctgttg atgtctgtgt 60
ctctggctat ggctatgtct atggctatgt ctacgtcact gttgatgtct gtgtctgtgt 120
ngatggccgt gtctatggct gtggctatgg ccatgtctag gtctatgtct acttctatgt 180
tgctgttgat atctacatta atgactatgt ctatgtctat gttgctgttg atatctgcgt 240
ctgtgttgat ggccatgtct atggctgttg ctatggccat gtctaggctct atatctactt 300
ctatgttgct gttgatacct acatttctcg ag 332

```

<210> 725

<211> 302

<212> DNA

<213> Homo sapiens

<400> 725

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gtcaacccaa cacaggcatg ctcatctgga aaaagttttt gtctcgccca gccttgccat 60
ttatcctaag gctgcttcgg ggcctggcca tccagcacc tggcaccag gttctgattg 120
gaactgattc catccgaac ctgcataagc tggagcaggt gtccagtgtat gagggcattg 180
ggaccttggc agagaacctg ctggaagccc tgcgggaaca ccctgacgta aacaagaaga 240
ttgacgcagc ccgcagggag acccgggcag agaagaagcg catggccatg gcaaaactcg 300
ag 302

```

<210> 726

<211> 588

<212> DNA

<213> Homo sapiens

<400> 726

```

gaattcggcc ttcattggcct accagagcat cacagtgcc attgatgtag tctcccagca 60
cctgatgatg caacgcaagg gtgagaaaat gggccgcttt caggtgcggg ggaacccaga 120
gggacaaggg gtagttgcct ttggccaaac caaggacatc atcaggcaga tcctgcaggc 180
tgatggactt cgcggcttct atcgaggcta tgtggcttca ctgcttacct atatccaaa 240
cagtgtgttc tgggtggcct tctatcactt ctatgcagag cagctctcct acctgtgtcc 300
taaggagtgc cctcacattg tctttcaagc tgtctcgggg cccctggctg cagccactgc 360
ctccatcctc accaatccca tggatgtcat acgaaccctg gtgcagggtg agggcaagaa 420
ctccatcctc ctgaccttca gacagctgat ggcagaagaa gggccttggg gcctcatgaa 480
gggcctctcg gccagaatca tctcagccac accttccacc attgtcattg tgggtgggcta 540
tgagagcctc aagaaactca gcctccgacc tgagctggtg gactcgag 588

```

<210> 727

<211> 290

<212> DNA

<213> Homo sapiens

<400> 727

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gaattcggct tcatggccta taggccatga aggccgaaca aaacagctgt atgtaatcat 60

```

```

tgccactagt tccatctaga actcctttct agtttggtat ttttaaatg tttatacata 120
aaaccaccaa aatacatagc ttcgacaaga tggaggttta tttctctctc ccataacagt 180
gcagtgatag tcagctggtc caggccaggc aaggggctgg tccatgatgt catcaggcac 240
ccaggttcct actgtcttgc catgtggcca cagttagcaa cttgctcgag 290

```

<210> 728

<211> 366

<212> DNA

<213> Homo sapiens

<400> 728

```

gaattcggcc ttcattggcct agggggattg cagagctgtg atcagagcct caatcagagt 60
ctgggcagga gggtcggagg gcagaagttg aagctccctc tgccctgcac cagccttctg 120
aaacctcctg tggacggagt cactctggat aagggatgga cggcaggtga acataagtgc 180
tgcaactctga gcttctggga gtcccaaggc acagaggcct gtactgcctg gcaagcctct 240
gccctctaag ggcagcagac aggggaagaca gtggtgtgga gggcccagat ccaacttgcc 300
tcctgtccac ggagaccggc ccagctatgc ctgggggaagg ggctctgctg atcgagtccct 360
ctcgag 366

```

<210> 729

<211> 388

<212> DNA

<213> Homo sapiens

<400> 729

```

gaattcggcc ttcattggcct aattgaattc tagacctgcc tcgagacatg cccggtcgct 60
gaaggtccct ctacagcggg gccggggagt ttcccgcgg cgaagacttt gaggccttgg 120
caggacaatt gtcagcgtag tgacctcctg ttccacagta gaggcacagg ttcagctttc 180
tgctcttttc tttttcttcc tgcgtcaggc gcatgcgggc acctcccacc ggctcggttg 240
gatctacctg gtggtggcct gcaatgtgag gcaacaccag cgcgcggggt ggcgagcgtg 300
gcttgcgagc tgcagcagcc ctggccagcc ttctctcaat gtgaatgcac tgcccaatca 360
gagcagacag cgacttggcg acctcgag 388

```

<210> 730

<211> 351

<212> DNA

<213> Homo sapiens

<400> 730

```

gaattcggcc ttcattggcct atgactgaat ctattttaag atctaaatta gcatctcttc 60
agacacacgg aacagctgct catttcaatc actcttctca tggagaaacc gaagaccaga 120
ggggacaaga ctagtccaag ggcattggga gtcattggga ggctggggtt ggaattgcaa 180
tgtcttgact ttccccgtca gcacactttt gtgtaccggt taaaaaacac taccaccatc 240
atcattgcca ccatcactac catcatcagc actataatca tcactaccac tatcgtcacc 300
atcatcacca tcacatcgct atcaccacca ttatcaccat catcactcga g 351

```

<210> 731

<211> 401

<212> DNA

<213> Homo sapiens

<400> 731

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gctcgagcct taccaccatt ttgttctttt atagttgcta atgttttagt cagtcgcgca 60
cgctcaattt caacataaat cttgccttctg gtaaccattc gtagagtatc aattaatcga 120
agtttgatag gaaggctctg gatttccctc acataagtac agcactgttg aaccattttg 180
gcaacagctt gttttaactg actccgcctt ttggacaaaa gcataatatt ttcattaaat 240
aaatcccatc ctttagcctc atagcacatc ttactactcg caactaagat acgggatgtc 300
gataccatat cggaagcagt acgagtctgc ttttcagag agagaagggt ttcaatgact 360
tcttgaagtc ttccttcctt ggctagcttc gcacactcga g 401

```

<210> 732
 <211> 278
 <212> DNA
 <213> Homo sapiens

<400> 732
 ggtccgtagc tcatgctgta acattactct atcaatcaac agtgctctga tatgttggtt 60
 tttcccatgg agccgatttt ccattgattt ctttactaag ttgaagcttt tccatcggga 120
 gtcaaattca tgcttgtgag atccttgga ttgtaaaagg tctccaataa tctttataat 180
 aagaaacaat gacttagtat catcttctga attatcaagt atgtgggtta gaagtttcct 240
 tataactgta gcaattactt ctcgggtggt ctctcgag 278

<210> 733
 <211> 252
 <212> DNA
 <213> Homo sapiens

<400> 733
 gggccctcat caacttcttt gtgtggagct cccagggtta aaagaccatt atcgagtgc 60
 tgtatatagg ttccctcatc catttcaatg gctatgggtt ctgaaatttc accaaagt 120
 gttactgtcc accagattcc aacatatcaa gctgggttct ttcattctct tctcttttct 180
 ttttcttata ttgttctttt ttcttcttac tgccacttat tctggcatcc tcatgagccc 240
 agactcctcg ag 252

<210> 734
 <211> 341
 <212> DNA
 <213> Homo sapiens

<400> 734
 gaatgctgag tctggggaca ggtagagaat ctcttcaaga aaaggaaaa gcctccagaa 60
 aaggaagctt tggagagatg ggggaacaaa ctgtgaaagc agtgcagaaa ttaagtcaac 120
 agcaggagtc agtttgtccc agggagagca cgggccctgg gcactccagc ccatgtctag 180
 acaattcttc atccaaagct ggtagccaat tccatgcaa tggaggaagc agagcaacgc 240
 aggtgtgtcc acaggaagat ctcaggccgg aggcacagga agcaacacct gccaaaacag 300
 aatctgtccc ctgggaggta aatgaaagaa caagtctcga g 341

<210> 735
 <211> 275
 <212> DNA
 <213> Homo sapiens

<400> 735
 gaattcggcc ttcattggcct aggtggtagt atagaaaggg gatataaacg aaaaataaaa 60
 tactgaattg ccacatatct agagtctgtg ttaaaattgg aaagatgtta gatgacttca 120
 taatttttgt attgcttctt caagtcaaaa cagcgtgttg cttccaggat ttgtgtgaac 180
 acagcagtgat gagttgcagt gcttcggtgc tcatagaaga atttcaata cttcagagca 240
 ttctgtttca tggaaacctt cctctcccc tcgag 275

<210> 736
 <211> 296
 <212> DNA
 <213> Homo sapiens

<400> 736
 gaattcggcc ttcattggcct aagacctgcc tcatctctg gcctctgagc ttttccctgc 60
 ccattcattc tccatccaga gccaggcac caattctatc ctgacagcct tctgctagag 120
 ccatggctta gagatctcat ttggggatac acgtttgttg tgtggccatc atgtgtggct 180
 gcatggagtg accgaagtga atcatctgcc tgcaagcgtt tacactcagg tgagcacaat 240
 tcacatactc cttggcttag cacatgtcac caaacttaca tacgtcgaac ctcgag 296

<210> 737
 <211> 327
 <212> DNA
 <213> Homo sapiens

<400> 737
 gaattcggcc ttcattggcct agtgccagct tgctaatttt cacagaagtt gatggcaatt 60
 cttcacatgt aaacagtgcc agtccacaga acctttatat attttttgaa gccagtactg 120
 tgctctgcat ataacaaagc tgcttcaagg atgagacctt tttctaaaag catgtaatgt 180
 gagaagccgg cctgccttat tttctttttt cttttttaat gattaaaaat agtttggtggc 240
 aaggcacggg ggctcggcct cctgaggtgc tgagattaca ggcgtgagcc actgtgccag 300
 cttgctaatt ttcacagaag gctcgag 327

<210> 738
 <211> 225
 <212> DNA
 <213> Homo sapiens

<400> 738
 gaattcggcc ttcattggcct aggttttttag gatttgctta ataattccagc caacataaca 60
 ttattttcaa gggaaacctt ccagaatgcc aaacactgcc ttatgagcta ttggtaactt 120
 aactttttatt tatttgagta tcacacttca catataaatt attcacacaa atactcttta 180
 gtcagttaac acagtgttgc tggagatctt acagcagtc tgcag 225

<210> 739
 <211> 447
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (105)

<220>
 <221> unsure
 <222> (244)

<400> 739
 gtttcctgtt catttcaggt gttttattga gcattctgatt tgtgtcagca ccatgtaaat 60
 atgatgagga gtatttggaa tagactttac attcaccaga aaatngatag tatttgttaa 120
 accaatgcat ccattcaaaa tagaggcaga gtaaacagcc taagaaatga ttccctttct 180
 acagtctgct aggagaaaaga ggtgagaggg gattggttga tgatttttaaat caagagttaa 240
 gggnacattt attacatgaa atctgacttc agttgtgcaa aggtatgtta agacattaag 300
 acaattgctg gaagggtttca aatatgtgta cacacacata gagctacttt tgtgtgttta 360
 tttatatgta tatttcacaa aggtcaatgc ccacagagga aaatgattat ttttaacttct 420
 gggttatcat ctgcgacggg tctcgag 447

<210> 740
 <211> 338
 <212> DNA
 <213> Homo sapiens

<400> 740
 gaattcggcc ttcattggcct actttttctt tagatgtgta cctcatttgc tgaagttgtt 60
 ttctgcctta aatgagattc acattcctca agagtctgcc catcctttga ttgtatatgc 120
 atctttctca ttgaaattca ttgttatact ctctcctgct tctgtttagg cagtctgctt 180
 ggggaagggga ctaagacttg ccatgggagt tttgactcag gattttcagt gaaagtagag 240
 gagtgtgtag aaagtatttc tgggctggat atcctggaga ctgctctact aggaatgaat 300
 gcttcctttt tttcccccag caccttgcct gcctcgag 338

<210> 741
 <211> 307
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (152)

<220>
 <221> unsure
 <222> (161)

<220>
 <221> unsure
 <222> (177)

<220>
 <221> unsure
 <222> (268)

<400> 741
 gaattcggcc ttcattggcct acttgcagtg aagcagagat tgtgccactg cactccagcc 60
 taagcaacag agcaagacac cggctcagaa aaaaaaaaaa atagttacaa agttgcagaa 120
 aattttaatg agttgctcag aggcctggag cntgaaaccc nataaaaatg gaagttngag 180
 tgcgtgtcat tttcttccaa gctagttaat catttctcat taagttctac atttagtttg 240
 taatgtgcat gttttattta tagctcangg tgataaacia gacaaagtca agcagaaaagc 300
 gctcagag 307

<210> 742
 <211> 487
 <212> DNA
 <213> Homo sapiens

<400> 742
 gaattcggcc ttcattggcct aggcggcctt gagtcacatg gatcagcttg acctccagtg 60
 gggctggaga ctaagggttag ccacatgggc atgcaacat ggaacccag taaaaacgtt 120
 ggacataaaa aatagagtga gcttccctgg ttggcaataa tccatgagta tggctgcaca 180
 ccagtgcac caggaagggtg tcatttttca caactctaca gggacaggac aattcaaaac 240
 tccaacattt ggaacttccc cgaactctgc cctatgcacc tctacccttg gctcattcta 300
 atctgaatcc ctaaactgca ataaactcta actatgggta tgagagcttt caatgagttc 360
 tgggtgagtct actttttaaag gaacaggatg gaaactccag tgtagctcta gggacttgcc 420
 caaccctacc gcaaatacca agttcttaag agttctccgg cagttcccaa ggtgcactcc 480
 actcagag 487

<210> 743
 <211> 260
 <212> DNA
 <213> Homo sapiens

<400> 743
 aattcggcct tcatggccta ataaatttga aactttcaac aacatatttt tcagccataa 60
 aactttcatt aagttttaag gaacagcttt ataaaaaagt tagttttcta cattctttca 120
 tctgatatag taaaatgcag ttcgatttta taatttcatt tattttcttt ttttttgctg 180
 acaccggca ctttatttagt ggggaaactc gccttgggtct ggcagagact gggatcaaca 240
 ggaccagcac ccatctcgag 260

<210> 744
 <211> 523
 <212> DNA

<213> Homo sapiens

<400> 744

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gaattcggcc ttcatggcct aaagaataat tatatgagtt aatttttttc tttttttggg 60
ggcttgctac tgattagcca aaggcagggg ggagactggc gggtttgaaa ttagagacac 120
ctgtgctgtt ttgggaagt gaggctcttg acctaggatt tgctgaagt ggtgcaggag 180
aggtcagtgt aggttaatat tttcagagct caaagcaagt gtggattggg gttgtttata 240
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tttgggaaac ttctgcaaaa gtccctgagc caatgcaaat taattttctt caaaaatacc 360
aagaaaattc cccatttggc tgtttcacct ggttgaggga attgactctt gtcattatgc 420
ttgtaaaagaa attaccaggc tgggtgtggt agttcatgcc tgtaattcca gcactttggg 480
cggctgaggt ggatgaattg cttgaatcca ggaattttctc gag 523
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<210> 745

<211> 275

<212> DNA

<213> Homo sapiens

<400> 745

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gaattcggcc ttcatggcct agtaggatta tgttccttct ggaagctgta gtggggatct 60
tttccttgca ttttctaact cctagaggct gtctgtatcc cttggctcat ggctcccttc 120
taaagaagta aaaaggcctg tatttcagat ggaatacttg atctgtgtaa tccatcaagt 180
agataaaaacc acttttttgg tttattgaaa caagaccatg aaagtaaaagt tttgaaaaag 240
aaaacaaatt ttcaattcga atccccaggc tcgag 275
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<210> 746

<211> 688

<212> DNA

<213> Homo sapiens

<400> 746

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aggattccag gaggtagtca ccccaaacat cttcaacagc cgactctgga tgacctcggg 120
ccactggcag cactacagcg agaacatgtt ctcccttgag gtggagaagg agctgtttgc 180
cctgaaaccc atgaactgcc caggacactg gtattcggca gctttgaatt tctactgaag 240
attttcacat gctacaattc atcctgggtt cttccctcct ttaacaacat tttcattaaa 300
aacaaattat gtgatcagaa gagcatttaa acgcaacatc tttgtattat atcttctgca 360
cctgattaga tccccacttt tttttttttt tttttaaaaga ggtcttccaa ctggagtgcg 420
ggtatgcgat tatagctcac tgcagctggg actgcaggta tatgccacca tgcccagcta 480
atttttaaaa ttttatattt gttagagatga ggtcttgcca cgttgctcag cctgggtctca 540
aactcctggc ctcaagcggg ccttcaacct tggcttccca aagcgtggg attacaggca 600
tgagccactg tgcccagcca gatctccaga tctgtgggca ttcagtaatg gtactgggat 660
catagcaatg accaaggcag cgctcgag 688
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<210> 747

<211> 621

<212> DNA

<213> Mus musculus

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<221> unsure

<222> (92)

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 <222> (585) .. (586)

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 <222> (612)

<400> 747
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 cactgtgtca tcgaagtgtt cgtcttcttc tncaacaggt ggctgaagga nacttggttc 120
 tgctgtactt gttttcttcg atgtntctaa aataccctcg gccatgatct tctcgcggtc 180
 ttttaacgcc tctcttttta tctccacctt tctgttctgt tttgccgtct cctccccctt 240
 gctgttggtc ctgentcgcc cctggcggtc ccaccgtcac cgcgaagagc gangtggtggc 300
 cgctgntctt gcccgcggtc tccttgccgg caccacgtcg ctgggaangc tgctgctgcg 360
 ccgcccgtgc cggcggttgg gactgctgct ccccggtgacc gttctngtcg cccgcgcctt 420
 cctcctcctg cgcgganctc gtcttcccc ctccttgtaa gccctggten ntgcngttc 480
 tcgtntntcn gannctgctt ctnttctt ccacgncnc nggnntnanc cgcgccncc 540
 gccngttct cctcneccan ctncntntn gtngccttc canannngng atnaccntta 600
 ggcntctntg gngcgaaatt c 621

<210> 748
 <211> 295
 <212> DNA
 <213> Mus musculus

<400> 748
 gaattcggcc aaagaggcct agcagaagaa agaagaagaa atgagacaaa tgtttggttat 60
 gagagtgaag gagaaagaag ctgaacttaa ggaggcagag aaagagcttc acgagaagtt 120
 tgaccttcta aagcggacac accaagaaga aaagaagaaa gtggaagaca agaagaagga 180
 gcttgaggag gaggtgaaca acttcagaa gaagaaagca gcggctcagt tactacagtc 240
 ccaggcccag caatctgggg cccagcaaac caagaaagac aaggatctcg tcgag 295

<210> 749
 <211> 395
 <212> DNA
 <213> Mus musculus

<400> 749
 gaattcggcc aaagaggcct acgatatttg ctgcgacctg caggcgctat ccgctgccgg 60

```

gttctggcgc gccctttcag ttctgcttgc tgtccgcacc gctgcgttac ccggaaccgc 120
cgggcccgaac agcatgacgt ccgcttttga gaactacatc aaccgaactg ttgccgttat 180
tacatcagat gggagaatga ttgtgggaac actgaaaggt tttgaccaga ccattaattt 240
gatttttggat gaaagccatg aacgagtatt cagctcttca cagggggtag aacaagtgg 300
actaggatta tacattgtaa gaggtgacaa cggtgcagtc attggagaaa tcgatgaaga 360
aacagattct gcgcttgatt aggggaacac tcgag 395

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<210> 750

<211> 441

<212> DNA

<213> Mus musculus

<400> 750

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gaattcggcc aaagaggcct acttgcggtt gtccatctca cctacagctc tggctctcatc 60
ctcaactcaa ccacaatcat ggctcagatg atgactctga gcctccttag cctggctctg 120
gctctcttga tccccgggac ccaaggcagt gatggagggg gtcaggactg ctgccttaag 180
tacagccaga agaaaattcc ctacagtatt gtccgaggct ataggaagca agaaccaagt 240
ttaggctgtc ccatcccggc aatcctgttc tcaccccgga agcactctaa gcctgagcta 300
tgtgcaaac ctgaggaagg ctgggtgcag aacctgatgc gccgcctgga ccagcctcca 360
gccccaggga aacaaagccc cggtgcagg aagaaccggg gaacctctaa gtctggaaag 420
aaaggaaagg gcaagggtcga g 441

```

<210> 751

<211> 243

<212> DNA

<213> Mus musculus

<220>

<221> unsure

<222> (46)

<400> 751

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gaattcggcc aaagaggcct aaaagaaaat ttaaagcatc cagagnatag catattatca 60
gagatgaaga tgctaaaaga gaagagacag caatcagaaa agaccttcat gccaaagcaa 120
cgtagcttac aaagcttgga ggcaagtctg catgctatgg agtccaccag agagtcactg 180
aaagcggagc taggaacgga ttgtctttct caactcagtc tggaagatca gaaaagactc 240
gag 243

```

<210> 752

<211> 507

<212> DNA

<213> Mus musculus

<400> 752

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gaattcggcc aaagaggcct agtggatctg acgacaccaa aagggtcag gatgctactg 60
ttgcaagctc tcctgttcct cttaatcctg ccagtcctg ccgaagatga cgttactaca 120
actgaagagc tagctcctgc ttgggtccct ccaccaagg gaacttgctg aggttggatg 180
gcaggcatcc caggacatcc tggccacaat ggcacaccag gccgtgatgg cagagatggc 240
actcctggag agaagggaga gaaaggagat gcaggctctc ttggctcctaa ggggtgagaca 300
ggagatgttg gaatgacagg agctgaaggg ccacgggggt tccccggaac ccctggcagg 360
aaaggagagc ctggagaagc cgcttatgtg tatcgctcag cgttcagtg ggggctggag 420
acccgcgtca ctgttcccaa tgtaccatt cgctttacta agatcttcta caaccaacag 480
aatcattatg acagcagcac tgctcgag 507

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<210> 753

<211> 408

<212> DNA

<213> Mus musculus

<220>

<221> unsure
<222> (97)

<220>
<221> unsure
<222> (118)

<400> 753
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caaacatgtc gctctccacg aagctgccag gatccancag aagactgacg cgctcccngg 120
ctgttagctt cctcgcgttg tgctgcgctg cgatgcggcg ctggcctcct cccagcaacg 180
ctgcatggcg cttgttgctg atgcgctctt taactgaaac cggctggctg caaaggccgc 240
gggtcgtgat gccgaggccg caattcagaa cggtgagcct cgctccagcc gccaccgccc 300
gaatcctaata cgcgcgcgcc attttttttt tttttttttt gactgccagc gagacacaca 360
ctcccctccg ggaaacttat ttttatcagc agccattacc ttgtcgag 408

<210> 754
<211> 431
<212> DNA
<213> Mus musculus

<400> 754
gaattcggcc aaagaggcct actatgccac caatgaaccc agctaccaca ttaccaagtc 60
tgatgccttt gtcagcaggg ctgcctagcc tccccaacct cccagcctc tccaactca 120
acctccctgc tccgcacatc atgccagggg tcggtttgcc agagctcggg agccccgggt 180
tgccacctct tccctccttg cctccccgaa acttacctgg cattgcacct ctccccatgc 240
tgtccgactt cctcccgta ttccttttg ttccagaggg ctcttctgca gccagcgag 300
gggagccgct gtcttccctt cctgccatgg gccacacctc tgacctgtc atgactactg 360
caaaggcaga cgcctcttcc ctactgtgg atgtgacgtc tcctgcttcc aagggtcccca 420
ccctagtcga g 431

<210> 755
<211> 441
<212> DNA
<213> Mus musculus

<400> 755
gaattcggcc aaagaggcct acttgcggct gtccatctca cctacagctc tggctctc 60
ctcaactcaa ccacaatcat ggctcagatg atgactctga gcctccttag cctgggtcctg 120
gctctgtgca tcccttggac ccaaggcagt gatggagggg gtcaggactg ctgccttaag 180
tacagccaga agaaaattcc ctacagtatt gtccgaggct ataggaagca agaaccaagt 240
ttaggctgtc ccattcccgc aatcctgttc tcaccccgga agcactctaa gcctgagcta 300
tgtgcaaacc ctgaggaagg ctgggtgcag aacctgatgc gccgcctgga ccagcctcca 360
gccccaggga aacaaagccc cggctgcagg aagaaccggg gaacctctaa gtctggaaag 420
aaaggaaagg gcaaggtcga g 441

<210> 756
<211> 658
<212> DNA
<213> Mus musculus

<400> 756
gaattcggcc aaaaaggcct acggagcgcc gaggggagcg tgtcccgggc cggttggtag 60
cgagggtggg tttcggggag cccccacccc catatcctgc agtgtagtcg gctcccggcc 120
actcaactcc ggcgagagcc gatcgtgtc tggattcggc cgcgggatgt gggcgcaagc 180
ttggcacgcc ggttgctcgc ttcccggtc cggggctcag cgaccgccc ttctgtgtca 240
tttctcagg aggcaccatg ttctcaccg ctgtcctcct ccgcccgcgc attccgggca 300
ggcagtgat cgggaagcac cggcgccgc gtaccgtgtc tttccaagcg aaggagagca 360
tgatccgtcg cctggagggtg gaggccgaga accactactg gtcagcatg ccctacatga 420
cagcagagca ggagtgcggc cacgcgcggc agcgacgggc ccaggctttt gaagccatca 480

aggcagcggc cacttccaag ttccttaagc atagatacat tgcagaccag ctagaccatc 540
 tcaacatctc gaagaaatgg tcctaaccct tcaagattat ggataccgga ctgctctatc 600
 cttacttggc cctggagctg agaaaatgta atttatgtac cagcgcgacc ccgtcgag 658

<210> 757

<211> 265

<212> DNA

<213> Mus musculus

<400> 757

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 cactgtaggc atggacaggg aagaaaggaa gaccatcaat cagggtcaag aagatgaaat 120
 ggagatttat ggttacaatt tgagtcgctg gaagcttgcc atagtctctt taggagtgat 180
 ttgctctggc ggggtttctc tcctctcctc ctattggatg cctgagtgcc ggggtgaaagc 240
 gacctgtgct agagcagaag tcgag 265

<210> 758

<211> 354

<212> DNA

<213> Mus musculus

<400> 758

gaattcggcc aaagaggcct agcagacaca gggcacacca tgaagctggc cctcctgcct 60
 tggattttga tgctgctctc aacaatacca ggccccgggt tcacagcagg tgcccaggga 120
 agctgttccc tgcgctgcgg ggcacaggat ggactctgtt cctgtcaccc aacctgctcg 180
 ggccttgcca cctgttggtg agattttctg gactactgcc tagagatttt accctcctca 240
 ggggtccatga tgggtggcaa agacttcgtg gtgcaacatt taaagtggac tgaccctact 300
 gatgggggtca tttgcagggt taaggagagt atccaaacc ttggctatgt cgag 354

<210> 759

<211> 350

<212> DNA

<213> Mus musculus

<400> 759

gaattcggcc aaagaggcct agagctttca tatccacgat gcgttttctg gccgccacga 60
 tcctgtctgt ggcgctggc gctgccagcc aggcggagcc cctgcacttc aaggactgag 120
 gctctaaggc gggagttata aaggaggtga atgtgagccc atgtccacc gatccctgtc 180
 agctgcacaa aggccagtcc tacagtgtca acatcacctt taccagcggc actcagttcc 240
 agaacagcac ggccttggtc cacggcatcc tggaagggat cggggtcccc ttccctattc 300
 ctgagcctga cggttgtaag agtggaatca actgcccccc agaagtcgag 350

<210> 760

<211> 392

<212> DNA

<213> Mus musculus

<400> 760

gaattcggcc aaagaggcct aaatagactt cacagcctcc aatgggaatc ccctcgaccc 60
 ttcttctctc cattatatca acccatggg caccaatgaa tacttgctag ccattctggc 120
 agtgggacag atcattcagg actacgacag tgataagatg ttccctgctc tgggatttgg 180
 ggcccagtta ccaccagact ggaagggtgc ccatgagttc gctatcaact tcaacccac 240
 taaccctttc tgctcaggcg tggatggcat cgcccaggcg tactcagcct gtctgcccc 300
 cattcgtctc tatggcccca caaacttctc cccgatcgtc aacctgtgg cccgggttgc 360
 agcccaggcc acccagcagc agaacagtcg ag 392

<210> 761

<211> 332

<212> DNA

<213> Mus musculus

<220>

<221> unsure

<222> (5) .. (8)

<400> 761

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aggcactagc cagctgggaa caagaaggac attccactcc actgcaggac cagtgccag 120
actgggcagg gaaagcagag gcccaggatg cattggggga ggcaactgac gacccagct 180
tctgcagccg ccacaggagg gggaaaagag gcttgccttt gcacccaaac aaggcccatg 240
gctgcaaaca gccccctcca tcaaatacaa gagtgtcatc tgaactgtca caaataacag 300
ttgatcatga agagcagagt gaccatcaca ga 332
```

<210> 762

<211> 372

<212> DNA

<213> Mus musculus

<400> 762

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gaattcggcc aaagaggcct aaagggttttc attatctgac agccagcctc actttggatg 60
ctccaacagt gtcttccctc cctttctccc ttctcttccc tcctgtgccc ctccctgaaa 120
gggctcaacc ttgcgtgcct gtctgtttct aactgtcccc agtcacatat cccatgtgca 180
acactgacca cacagtgtct gtcaccacgg ccagcactgc agctcgcccc agcacaagcc 240
cccctggetg gcttggacct gagtgtttgc tcccttctcg ccactcctgg aatctgcaat 300
gtggcgccat cttgcttgta tgcagggcac ccgtttttgt gcatttcgct ttgttttccc 360
ggagtggctg ag 372
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<210> 763

<211> 387

<212> DNA

<213> Mus musculus

<400> 763

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gaattcggcc aaagaggcct aggacttgtt tcggaaggag ctgactggcc aatcacaatt 60
gcgaagatga aggctctgtg ggccgtgctg ttggtcacat tgctgacagg atgcctagcc 120
gagggagagc cggaggtgac agatcagctc gagtggcaaa gcaaccaacc ctgggagcag 180
gccctgaacc gcttctggga ttacctgcgc tgggtgcaga cgctgtctga ccagggtccag 240
gaagagctgc agagctccca agtcacacaa gaactgacgg cactgatgga ggacactatg 300
acggaagtaa aggcttataa aaaggagctg gaggaacagc tgggtccagt ggcggaggag 360
acacgggcca ggctgggcaa agtcgag 387
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<210> 764

<211> 467

<212> DNA

<213> Mus musculus

<400> 764

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gaattcggcc aaagaggcct aggttttatg ataaggaaga gtgccagaga attgcaaac 60
taatgaaaaa cctcactcag agcgaacagt tgaaagcctg tcatggagcc ggatcctccc 120
ccgtgacctt gagctcagga gagggccaag aagtagatat cctgcagatg ctaccaagg 180
ccaaggatga gtacaccaag tgtaagacct gttccgagcc aaaacagatg accaattcct 240
ctgccatctg tgacaaccct aaacttatca aacctgtccc cgtgagacct agcagcagcc 300
agaggctgca aggaccgcg cccagcaaga cctcggacct tgagcctcag cacttatctt 360
taacagcact atttgggaaa caagacaaag ctccctgtca ggaaactgta aagccctccc 420
ggacctttgc ccaccaccac caccatcacc accagcagct tgtcgag 467
```

<210> 765

<211> 487

<212> DNA

<213> Mus musculus

<400> 765

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gaattcggcc aaagaggcct aggaacatta tctggacagt attgaaaacc tcccgtttga 60
attacagaga aactttcagc tcattgagga cctagaccaaggacagagg acctgaaggc 120
tgaattgac aagttggcca ctgaatatat gtagtagcgc cgcagcctga gctccgagga 180
gaagctggcc ctctcagac agatccagga ggcctatggc aagtgcagg aatttggtga 240
cgacaagggtg cagctggcca tgcagaccta tgagatggta gacaaacaca ttcggcggct 300
ggacacagac ctggcccgtt ttgaggctga tctgaaggag aaacagatcg agtccagtga 360
ctatgacagc tcttctagca aaggcaaaaa gagccggacc caaaaggaga aaaaagctgc 420
cagagcccgt tccaaaggga aaaactcaga tgaagaagcc cccaaggctg cccagaagag 480
agtcgag

```

<210> 766

<211> 382

<212> DNA

<213> Mus musculus

<400> 766

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gaattcggcc aaagattcgg aaggagctga ctggccaatc acaattgcga agatgaaggc 60
tctgtgggccc gtgctgttgg tcacattgct gacaggatgc ctaccgagg gagagccgga 120
ggtgacagat cagctcagat ggcaaaagcaa ccaacctgtg gagcaggccc tgaaccgctt 180
ctgggattac ctgcgctggg tgcagacgct gtctgaccag gtccaggaag agctgcagag 240
ctcccaagtc acacaagaac tgacggcact gatggaggac actatgacgg aagtaaaggc 300
ttacaaaaag gagctggagg aacagctggg tccagtggcg gaggagacac gggccaggct 360
gggcaaagag gtgcaagtcg ag

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<210> 767

<211> 508

<212> DNA

<213> Mus musculus

<400> 767

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gaattcggcc aaagagccta ctgcggtg tccatctcac ctacagctct ggtctcatct 60
caactcaacc acaatcatgg ctcatgatg gactctgagc ctcccttagcc tggctcctggc 120
tctctgcata ccttggaccc aaggcagtga tggagggggt caggactgct gccttaagta 180
cagccagaag aaaattccct acagtattgt ccgaggctat aggaagcaag aaccaagttt 240
aggctgtccc atcccggcaa tctgtttctc accccggaag cactctaagc ctgagctatg 300
tgcaaacctt gaggaaggct ggtgacagaa cctgatgcgc cgcttgacc agcctccagc 360
cccagggaag caaagcccgc gctgcaggaa gaaccgggga actctaacta agtctggaaa 420
gaaaggaaag ggcaaggtcg aggttctccc tatagttagt cgtattaatt tcagaggagt 480
attdagaaga gaagctgaag ctgtcgag

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<210> 768

<211> 297

<212> DNA

<213> Mus musculus

<400> 768

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gaattcggcc aaagaggcct aggacttgtt tcggaaggag ctgactggcc aatcacaatt 60
gcgaagatga aggtctgtg ggccgtgctg ttggtcacat tgctgacagg atgcctagcc 120
gagggagagc cggaggtgac agatcagctc gagtggcaaa gcaaccaacc ctgggagcag 180
gccctgaacc gcttctggga ttacctgcgc tgggtgcaga cgctgtctga ccagggtccag 240
gaagagctgc agagctccca agtcacacaa gaactgacgg cactgaagga ggtcgag 297

```

<210> 769

<211> 310

<212> DNA

<213> Mus musculus

<220>

<221> unsure

<222> (65)

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<221> unsure

<222> (82)

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<221> unsure

<222> (104)

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<221> unsure

<222> (181)

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<222> (210)

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<222> (226)

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<222> (266)

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<221> unsure

<222> (298)

<220>

<221> unsure

<222> (304)

<220>

<221> unsure

<222> (306)

<400> 769

```
gaattcgcaa agaggcctac gatgccgttt tctggccgcc acgatacctgc tgctggcgct 60
ggtcnctgcc agccaggcgg anccccctgca cttcaaggac tgcngctcta aggtgggagt 120
tataaaggag gtgaatgtga gcccatgtcc caccnatccc tgtcagctgc acaaaggcca 180
ntcctacagt gtcaacatca cctttaccan cggcactcag tcccanaaaa gcacggcctt 240
ggtccaccgg catcctggaa aggatncggg tccccctccc tattcctgaa acctgacngt 300
tgtnanaatg                                     310
```

<210> 770

<211> 512

<212> DNA

<213> Homo sapiens

<400> 770

```
gaattcggcc ttcattggcct aaaaatattt tgggtggcacc tcaaaactcc caatttagat 60
ttaatttaga ttaaaacact tactcttttt aataaagtta taaaattaat tattaataatt 120
gcctattgaa gattaaaggc agtggaacgt ttattttcct tacaaaacaa ttttgtcttc 180
aataagtgtg attgtgttaa tcaattatgc tattaataaat acaactgcgc ctggcctatg 240
```

```

gcatctgtct tctaaggac ctcctgctt cagcctttac agagtatctt tctagcctcg 300
tctctggctc tgttcacggc cctctacaga gcatgcctct gcctttgttc tttgaggagc 360
gtgtagcctc cttctcctcc acctcaaaca tctgcgcagt tcccatttac ctctcagcct 420
gggccagtgc acagcatcaa caagctttct ctgagaaggc agaaccagct atttcttggt 480
ctgtgttctc atcatactct acacaactcg ag 512

```

<210> 771

<211> 624

<212> DNA

<213> Homo sapiens

<400> 771

```

gaattcggcc ttcattggcct aattatagct cactgtagct tcaaaagcct gggctcaagc 60
agtcctcctg tctcagcctc ccgagtagat aagactacag gcacagggtg gtgttgacct 120
cctagcctca agcagcctcc caaagtgtg agattacagg tgtgagccac tatacccagc 180
ccagtgttat atttttgtat aatcctatga agtatcaagg cagttattat ccctgtttta 240
ctgctaagaa acttgaagtt tacagaggta aattatttgc ctaagcctaa actctgatct 300
cgaatctgaa tcccaagtcc aatattcttt tcaccgtatt acaatatttt taccatcaac 360
cctccattct gtctgcacat catacaaatg agtatctcta cagagctttg agttgctttt 420
aaacaaaaga gatttttcta cccaatgttt agagtagtga ttctcggctc catttttaca 480
agatttcaag atttaatttg tcaaaaaagt tctgaaattt tcaaagcaaa agcaatttta 540
atttaattgc tctaaaaaat aagcagattt atcatttagc aattctttaa gggagagtgt 600
atcataaaac tgaaatagct cgag 624

```

<210> 772

<211> 418

<212> DNA

<213> Homo sapiens

<400> 772

```

gaattcggcc ttcattggcct aatgaattta tttatatgaa ggctctcaca gagacacaca 60
cagcacttca gtagcatttg cattcctggt taaagaatca ccaatattta aaataaaaaac 120
tttctgaaa ttgggactgt catgttatcc agaagggtg gtacatccgc ccaccatgtc 180
cccctgctgg gtcaggagcc aacacaggac cctgcgtgtg agcgtgcctg acatctcacg 240
cacggccact ccagagccgg tccctgtcct tggaaagctg tgaagccttg cgttgagtgc 300
cttctcgata ctgacggctc cgtgctgaca ttctgagctc tggagtcaca ccagcgcagg 360
ggcgtggagg aactgaggtt tggaaaggaat gccaggtctc gcacagcttg gcctcgag 418

```

<210> 773

<211> 197

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (40)

<400> 773

```

gaattcgcgg ccgcgtcgac catacaagca ccctggcagn tatgaagttg atgacagctt 60
tgggtgaatgt ggcactaaat cttagcatta atatggataa tacacaaaga caatatgaag 120
cagaacggaa taaaatgatt ggaaaacgag ccaatgagag gctagaactc ctgctacaaa 180
agcggaaaaa gctcgag 197

```

<210> 774

<211> 626

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (46)

<220>

<221> unsure

<222> (66)

<220>

<221> unsure

<222> (68)

<220>

<221> unsure

<222> (93)

<400> 774

```
gaattcgcg cgcgctcgac tgggaattcta gaccagcctc gagaanctag tatcccaccc 60
ttggtncngc ctgtcgccaa tgtgcctgct gtnccagcaga cactaattca tagtcagcct 120
caaccagctt tgcttcccaa ccagcccatc actcattgtc ctgaagtaga ttctgataca 180
caaccctaaag ctccctggaat tgatgacata aagactctag aagaaaagct gcggtctctg 240
ttcagtgaac acagctcctc tggagctcag catgcctctg tctcactgga gacctcacta 300
gtcatagaga gcaactgtcac accaggcctc ccaactactg ctgttgccac aagcaaacctc 360
ctgacttcta ccacaagtac ttgcttacca ccaaccaatt taccactagg aacagttgct 420
ttgccagtta caccagtggg cacacctggg caagtttcta cccagtcag cactactaca 480
tcaggagtga aacctggaac tgctccctcc aagccacctc taactaaggc tccggtgctg 540
ccagtgggta ctgaacttcc agcagggtact ctaccagcg agcagctgcc accttttcca 600
ggaccttctc taacccaagt ctcgag 626
```

<210> 775

<211> 233

<212> DNA

<213> Homo sapiens

<400> 775

```
gaattcgcg cgcgctcgac aaaataaaaa taaaataaat aataaaaacc agtcctaac 60
caaattctta ctttagtctc tagcctcaga gtttattagt tcttagtaat gttactatga 120
aggcaaatag gagacaaatt attattctgg tttttattgt tactgccact gcaattccta 180
tgattattgc tataattccc tatttaatag gtaaacagt tacaacactc gag 233
```

<210> 776

<211> 408

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (71)

<220>

<221> unsure

<222> (97)

<400> 776

```
gaattcgcg cgcgctcgac tgctagtgtt acttgtagtt ttttgaggac cctccatact 60
gttttccata ntggctatac tactttactg atctttntct ttttctctaa tttaaacaac 120
tgtcaciaag tcagtttgac ttattgaact tgtataactt ctgtgcctca ataaaactga 180
atgttacagt aaggaattag gtgaaattta cttttttttt ttttttttcc aggaagactt 240
acttagttag gttagctagta gaatagtaac ctgaactcaa gaaatgtaat ttcatcctga 300
taaaactgct gagtagggct atcttcctaa ttttcattaa atatttctta cttggaaaca 360
ttgaatatta aatgagacaa aaactgtaag actaacagca aactcgag 408
```

<210> 777
 <211> 156
 <212> DNA
 <213> Homo sapiens

<400> 777
 gaattcggcc aaagaggcct accacactga aattatttgc caatgaatcc caaagatttg 60
 gtacaaatag tacaattcgt atttgcttct ctctttcctt tcttcagaca aacaccaaatt 120
 aaaatgcagg tgaaagagat gaaccactcc ctctgag 156

<210> 778
 <211> 535
 <212> DNA
 <213> Homo sapiens

<400> 778
 gaattcggcc aaagaggcct aagaaaaacg ccaacttttc agacaaattt tccctccacc 60
 agaatcactc cggtagagac acagagaaca gacttcttgt actcccacga tgaatgagcc 120
 ggaggtcact tactcaactg tgagacttca taagtcttca ggggtgcaga aattagtaag 180
 gcatgaggag actcaagggc ccagagaagc tggcaacaga aagtgttcag tatcctggca 240
 actcatttgt aaagctcttg gaatcctctg tttccttctt ctggtaatag tgcagtgtt 300
 gacgataaag atttttcagt atagtcaaca caaacaagaa atcaatgaaa ctctcaacca 360
 ctaccataac tgcagcaaca tgcaagtga tttcaactta aaggaagaaa tgttgacaaa 420
 taagtctata gattgttagc caagcaatga acttctggat tacatcaaaa gagaacagga 480
 cagatggaac agtgaaacca agacggtttt agattcctca cgggacaatc tcgag 535

<210> 779
 <211> 123
 <212> DNA
 <213> Homo sapiens

<400> 779
 gaattcgcgg ccgcgtcgac gcaggcattc tctcattccc attttacaga gaggaactg 60
 agactcaaag gactgactct aaagcccaag ctcttgacca tgagaccata cttctttctc 120
 gag 123

<210> 780
 <211> 436
 <212> DNA
 <213> Homo sapiens

<400> 780
 gaattcgcgg ccgcgtcgac cgggtagtgt gagaaaaaaa ttgcaaagaa gatagtcca 60
 caaaagttag aagaagaact caagtgggga aaaaaaagta gacttttcaa ggaaagagga 120
 aaggaagaaa aggaattgca tgtaataaat agagatgagg atgaatcaga gtgacttcct 180
 aaatatatgc tgcataaggaa gaaaaatgtg gccaaagagga atgggtgggac ctgaaagaga 240
 tgtggaggag ggtgagagga agggactgtg tggaaggcag agctccgaaa cacagccgga 300
 aaacagctgc ttgtattcca gctacagcat ggaaatgcac gcgggcctct ccgctgctcc 360
 tcaccagccc gcaccctaca cagaggcttc tgttcattca ttagttcatt cactcatgga 420
 tcctcttccc ctctgag 436

<210> 781
 <211> 651
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (49)

<400> 781
gaatttcagt agtttcactt ttcaaaatta aacaaatttt taattttant taattctgtt 60
gttattttctt cagagtgttt ctctctgtca cttaggctag agtgcagtgg catgatcttg 120
gctcactgca acctccacct ccaggttca agcgattctc ctgcctcagc ctcccttgta 180
gctgggatta caggtgcctg ccaccacgcc tggctaattt ttgtattttt agtagagatg 240
gggtttcacc atgttggcca ggctggcttc gaactcctgg ccttgtgatc caccgcctc 300
ccaaagtgtt gggagtacag gcgtgagtca ccatgcccgg ccttcttctt ttattttttt 360
ttaaagtaga gggtgcaaac tgacagcctt tggaaagaat acagcctaca aatacttttg 420
tttggcttgc acagtatttg tttattgttt ttacacacga agaagttgcg agcatttaaa 480
acactggcac tttaataaaa gttttaaat tttggcttct tttggaaaat ggaaagggtg 540
ctcctctctg ggctcagcatt cctcttggtg gcagtttagt gcagctgggt tgaagctgct 600
ccttttagcca ggcttgtggg ctccagtttg ccacagcctc caccactcga g 651

<210> 782
<211> 384
<212> DNA
<213> Homo sapiens

<400> 782
gaattcgcgg ccgcgtcgac aaaataattc agatgagcta gtttctagtt tgccctataa 60
tttttagaag ttacatgcta actcaccctg tattatggtc agaaatctga actgtgggag 120
atactgggtt ttgacccac gtaattttcc acttaacctt tattcacaga gtactgaacc 180
taggcctttc tcatcaagaa tctctcaagg gtttaaaatg acagtgtata gtttttgtaa 240
aggcaggtta aatcttgatt ttaatgtagg cttttgacat gtattatttt cttcattgtt 300
tttaactctt gaactttatg agttaggatt ccctgacaaa tatacgctaa taaatgtctt 360
agtaccgata tgaacaatct cgag 384

<210> 783
<211> 165
<212> DNA
<213> Homo sapiens

<400> 783
gaattcgcgg ccgcgtcgac tggcaaaggg ggtggtagat tctggcaaaa aagttttggc 60
atctgacacc catcagatct gctggctgac cgaattatac attctgtgga tagagagttc 120
tcaaagtaac attgatccat gatattttgt tgctggatgc tcgag 165

<210> 784
<211> 457
<212> DNA
<213> Homo sapiens

<400> 784
gaattcgcgg ccgcgtcgac cctaaacctg cgattgaatt ctagacctgc ctcgagctat 60
ccacctgcct gtctacacct tctccttcc atccatccac tcacctgtct acaccttctt 120
ccttccatcc gcctgtctac actttctctc ttccatccac ccacctatct ataccttctt 180
ccttctgtcc acctgcccct ctacgccttc ctccatccat ccaccgcct gtctacgcct 240
ttctccttcc atccacccac ccatctatac tttcctcctt ccatccacct gcctgtctac 300
atcttctctc ttccatccac ctgcctgtct acaccttctt ccttcctgct atccacacat 360
gcactctgtt ttccaatcat ccttctggct gttgttatca ccttggccat ctacggcacc 420
cggaagtcca agaagaaagc ataacaggca actcgag 457

<210> 785
<211> 437
<212> DNA
<213> Homo sapiens

<400> 785
gaattcggcc aaagaggcct acgagggcga cggaggaact ttcgcgagca aaagatccgt 60
ggccgagatc caggagagag cagcggtaga atgaggccgg cgtgattctg aactgtaaac 120

```

ccagaagagg cgtggctgtg gcggagggag gagtcgtgag gggtagtact aacctcgga 180
ggcgcgattc gggatcctaa tcggatatatt cattttggtt tatctcttag tttgtcaaa 240
aaattttatc tgagtttata ttaaattaac tcattatcag aagattatta aataaagata 300
tagaaaaata catcagaaat ttcctgacgg gagttaaaaa ttagcatcct ccatttctct 360
ttacagagtt actgcattta aaattatttg tttgttcagt tatttacctg ctcatgttgt 420
tcgctgttgt actcgag 437

```

<210> 786
 <211> 398
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (16)

<220>
 <221> unsure
 <222> (82)

```

<400> 786
gaattcggcc aaagangcct ataggcctct ttggccgaat tcggccaaag aggcctacta 60
tttgtgtatc tttttgcttg tnttctgttg ggatagtctt ggactttttc aaatttcatg 120
aatcagggag gggacaacag gtagaatagg cctcctgagt cccttacctg ttctttttcc 180
ttttttctag tctggttttt cttctcctta tcattttctt gttctttttc attttcctat 240
gctgctgctt ctattttctt tatgtgttgt tgtttctcct tctcctccct ttgtattatt 300
tatccaagc aatagcctta acaaacaacc atccaaaact gagttaaaaa tagactactt 360
gtcagtgtgt tgtactcccc cctcctccct gccgcccg 398

```

<210> 787
 <211> 200
 <212> DNA
 <213> Homo sapiens

```

<400> 787
gaattcggcc aaagaggcct agagactgga ggccagtgga gcatttttgag cagagccgtg 60
tcattgaaag actcattttt tcagtgggta ctttgacttc tgtgtggaga acagactgga 120
gtggagctgg agtagagaga ggagactggt taggagcatt gccacagtcc aggcattgaga 180
cgatggtgtc tggcctcgag 200

```

<210> 788
 <211> 199
 <212> DNA
 <213> Homo sapiens

```

<400> 788
gaattcgacc aaagaggcct agtcgattga attctagacc tgcctcgagc aacccgctat 60
tagtactttg gctaataaat tggatcccat tttgtttgct aaataaaggc tcagtgtgga 120
cttactttcc tctttacttt gaaaatctga atatagttcc caaatgaatt taaagtacat 180
tcaagcaacc atactcgag 199

```

<210> 789
 <211> 258
 <212> DNA
 <213> Homo sapiens

```

<400> 789
gaattcggcc aaagaggcct acggtatgtt aaaactatgt taaattctgc tttgctattt 60
tgttgtgtga taaaagact tctaaattgg aagtcaggaa ggatggacct cagccatgag 120
ctgccttgcc aggcgtgtgt tatcacaaca gttggtattg cccttactgc aacaaatggg 180

```

gaagtagatt tgactgcaca ttttaacaaa aatcttgaga ataccaggaa aacaactagc 240
atgaaggga gctcgcag 258

<210> 790
<211> 223
<212> DNA
<213> Homo sapiens

<400> 790
gaattcggcc aaagaggcct acgagtatct ggagttgagc tctgtattga catctaattct 60
gcatttctcc tctactgggg tgaacactgt ctgcgcactg ggtataacag cattactact 120
attgctgcta cagccaaagc tgtcatcaca tttggaacta ctgttcagat caagtgtcat 180
gctatttttt gagggatctc cctgtttact tgtattactc gag 223

<210> 791
<211> 281
<212> DNA
<213> Homo sapiens

<400> 791
gaattcggcc aaagaggcct agatataagt tagctgccct gaaaccctcc acaggatttt 60
caaaggactg ctagtgttcc atctgaagac ggaaagacac attccctgca acattttctg 120
cacagtgcgc tgccccaaac aagctgccct gttgcaaata acctttcagt acagcatatt 180
ttttctcaaa cgctgcataa ttattaagca caccattttt cctgcgatg gaattctgtt 240
ctctctcaat gttaatcttt aatgtacaag ccataactcga g 281

<210> 792
<211> 134
<212> DNA
<213> Homo sapiens

<400> 792
gaattcggcc aaagaggcct agggagaag aaaattctgt attggttttg actaacaaca 60
agctgcgcga agatctcttt ttctccatgt tactgagagg tgacagtgtg ctggcagctc 120
tcacagccct cgag 134

<210> 793
<211> 165
<212> DNA
<213> Homo sapiens

<400> 793
gaattcggcc aaagaggcct acagaagatc ccacaggaga agatgcacat gactcccttc 60
ttttagcat tttctagttc cccgcaccg tcagtggat tatctccctc gtgcagccct 120
ggcatatctg cccacatct gagaggcatg cgcacgcccc tcgag 165

<210> 794
<211> 305
<212> DNA
<213> Homo sapiens

<400> 794
gaattcggcc aaagaggcct acgagcacag cccgcacccc ttgtacctgc accactccca 60
cccaaagtgt ctttctactt ataaatagaa caagaagtaa atatatatgc ttagctatct 120
taggagttag atcttggatg ttttaaagtc cagctgggtc agacaacatg ttacttgctc 180
cctatgtgat atggtttgga tatttgcct ctctaaattt catcttgaaa tctgaccccc 240
cagtgttggg ggtgggatct agtgggaggt ggtgggtgat gggggcagct cccactacac 300
tcgag 305

<210> 795

<211> 182
 <212> DNA
 <213> Homo sapiens

<400> 795
 gaattcggcc aaagaggcct aagggtcatc ctaattatat ttgtacaagg aattgtgtaa 60
 gcatagaaac tatgaaaaac ataattttga ttacattatt tataatattt tgtaatatga 120
 gtagttccaa gatcagagtt atggccacac attgctcgag caggctctaga attcaatcga 180
 cg 182

<210> 796
 <211> 436
 <212> DNA
 <213> Homo sapiens

<400> 796
 gaattcggcc aaagaggcct aaaaatacaa cagattctca gagactattt tttttggggg 60
 gggtttggggg cgggtgggga cggagttctg ctcttgctcc ccagcctgga gtgcaatggc 120
 acaatctagg ctactgtaa cctccgtctc ccaggtacaa gtgattctct agagactatt 180
 attaggaaca cttcaagcac acaactagaa aatctagagg caatggacaa attcctgaaa 240
 acatacaacc tcgcatgttt gaatcaggaa gaaactgaaa ccctgaacag atgaataatg 300
 aattctgaaa ctgaatcagt aataaaaaaa caacaaccaa aaagctcttg accagacaga 360
 tccacagctg aattctacca gatgtgcaaa gagcctgtac caatcctact gatactattc 420
 ccccaacaac ctcgag 436

<210> 797
 <211> 249
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (96)

<400> 797
 gaattcggcc aaagaggcct acctaaaccg tcgattgaat tctagaccat gcctggccct 60
 tttgtgtttt tttttaaatt attatttttt tttctngagg caggctctgc tctgtcacct 120
 aggctggaat gcagtggctc gatttcaggt tactgcaccc gaaaccttct gggctcaagc 180
 agtcctccca gtctcagctt cccaagtagc tgggactaca ggcgcatgcc accattccca 240
 actctcgag 249

<210> 798
 <211> 313
 <212> DNA
 <213> Homo sapiens

<400> 798
 gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt ctagacctgc ctaggactac 60
 tgctcacgtg ccccgccac catattgaac tgccttgtag actatcacca aactcaaatt 120
 gaccaaccca taataaatgt tatctattgt gctatttgcc atgctctgta ccagccctga 180
 gccagaccca ttccataaac tccattcatc cccatccaac tttcttctact ttactgagcc 240
 atgccttgta gcagcagcca cccatctcag ttctgccaca gccagctcca ctccctcacc 300
 cccgagtctc gag 313

<210> 799
 <211> 263
 <212> DNA
 <213> Homo sapiens

<400> 799

```

gaattcgcgg ccgcgtcgac ttcagttcta atagtttttt tgtgaagtct ttaggttttt 60
ccaaatataa gatcatatca tctgtaaaaca aaaataattt gacttactcc tttctgcttt 120
ggatgtcctt tatttccttc tcctgtctga ttgtcttagc taggactgcc agttctgtgt 180
tgaatagcag tggatagatg gggcattctt gctgtattcc agatcttaga agaaagactt 240
tcagttttcc cccatgtctc gag 263

```

<210> 800

<211> 331

<212> DNA

<213> Homo sapiens

<400> 800

```

gaattcgcgg ccgcgtcgac ccaaacagcc cgggaccatg ctgtcgtccc gctccttgct 60
tccacacctg ggactgttcc tgtgcctggc tctgcactta tccccctccc tctctgccag 120
tgataatggg tcctgcgtgg tccttgataa catctacacc tccgacatct tggaaatcag 180
cactatggct aacgtctctg gtggggatgt aacctataca gtgacgggcc ccgtgaacga 240
ttcagtcagt gccgtgatcc tgaagcaggt gaaggaggac gacagcccag tggggcacctg 300
gagtggaaaca tatgagaagt gcaaactcga g 331

```

<210> 801

<211> 296

<212> DNA

<213> Homo sapiens

<400> 801

```

gaattcgcgg ccgcgtcgac ctgcccacta agaagatgaa gccttttcat actgccctct 60
ccttctcat tcttacaact gctcttgga tctggggcca gatcacacat gcaacagaga 120
caaaagaagt ccagagcagt ctgaaggcac agcaagggct tgaattgaa atgtttcaca 180
tgggctttca agactcttca gattgctgcc tgtcctataa ctcacggatt cagtgttcaa 240
gatttatagg ttattttccc accagtgggt ggtgtaccag gccgggctg ctcgag 296

```

<210> 802

<211> 152

<212> DNA

<213> Homo sapiens

<400> 802

```

gaattcgcgg ccgcgtcgac gggaccattt gcttcttttc tttctcgaat aaaatgtttg 60
taatactcat tgtaacagcg actgtggcat ggggcctgtc ttctgtagag cttttgtgct 120
gtgcttggtt ccacggcagc cagcaactcg ag 152

```

<210> 803

<211> 678

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (66)

<220>

<221> unsure

<222> (172)

<400> 803

```

gaattcgcgg ccgcgtcgac atccaggatg tgggtgtcct tgatccttct ttcttgccctg 60
ctggcncatg ccagtgccca tgacaagcct tccttccacc cgctgtcgga tgacctgatt 120
aactatatca acaaacggaa tacaacatgg caggctggac gcaacttcta cnatgttgac 180
ataagctatc tgaagaagct gtgtggcact gtccctgggtg gacccaaact gccaggaagg 240
gttgcgctcg gtgaggacat agatctacct gaaacctttg atgcacggga acaatgggtcc 300

```

```

aactgccccg ccattggaca gattagagac cagggctcct gcggtctctg ttgggcattt 360
ggggcagtg aagccatttc tgaccgaacc tgcattcaca ccaatggccg agtcaacgtg 420
gaggtgtctg ctgaagacct gcttacttgc tgtggtatcc agtgtgggga cggctgtaat 480
ggtggctatc cctctggagc atggagcttc tggacaaaaa aaggcctggt ttcaggtgga 540
gtctacaatt ctcatgtagg ctgcttacca tacaccatcc ctccctgcga gcaccatgtc 600
aatggctccc gtcccccatg cactggagaa ggagatactc ccaggtgcaa caagagctgt 660
gaagctggct atctcgag                                     678

```

<210> 804

<211> 204

<212> DNA

<213> Homo sapiens

<400> 804

```

gaattcgcgg ccgcgtcgac gtcccttatg aattctatct tctcattctt ccgggcatgg 60
gctttctgta gcctcactat cctctcaatc agcatggctt tgtccacttc tgggaagtgt 120
tccacagcca ccgaggagct ggtattctct ggagatcggg cttcagcact gattcgagca 180
ttaagtgacc ctgatgaact cgag                                     204

```

<210> 805

<211> 284

<212> DNA

<213> Homo sapiens

<400> 805

```

gaattcgcgg ccgcgtcgac gcagactgtc ctgaactcat ctctcaaagc tgctacagag 60
cccaggaaga tttcaggatg aagagcttcc tctcttctct cactatcatt cttctggttg 120
tgattcagat acaaacagga tccttgggac aagccactac ggccgcttct ggtactaaca 180
aaaacagcac ctccacccaaa aaaacccctc taaagagtgg ggcctcatcc atcatcgatg 240
cgggtgcctg cagtttctct ttctttgcca ataccgaact cgag                                     284

```

<210> 806

<211> 290

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (107)

<400> 806

```

gaattcgcgg ccgcgtcgac atcatggcta ccctgcgtgt cccactcctg gtggctctctg 60
tccttcttgc tgtggcaatt cagacctctg atgcagggtc ctatggngcc aatgtggaag 120
acagtatctg ctgccaggac tacatccgtc accctctgcc atcacgttta gtgaaggagt 180
tcttctggac ctcaaaatcc tgccgcaagc ctggcgttgt tttgataacc gtcaagaacc 240
gagatatctg tgccgatccc aggcaggtct gggggaagaa gctactcgag                                     290

```

<210> 807

<211> 885

<212> DNA

<213> Homo sapiens

<400> 807

```

gaattcgcgg ccgcgtcgac tcatcatgga gctctcgcgg cggatctgtc tcgtgcgact 60
gtggctgctg ctccctatcgt tcttactggg cttcagcgcg ggatctgccg tcgactggcg 120
ggaacccgaa ggcaaggaag tatgggatta tgtgactgtc cgaaaggatg cccacatgtt 180
ctgggtggctc tattatgcca ccaacccttg caagaacttt tcagagctgc ccctgggtcat 240
gtggcttcag ggtggtccgg gtggttctag cactggattt ggaaactttg aagaaatcgg 300
ccctcttgac acccaactca agcctcgaaa tactacctgg ctgcagtggg ccagtctcct 360
gtttgtggat aatcccgtgg gcacgggctt cagctatgtc aacacaacag atgcctacgc 420

```

```

aaaggacctg gacacggtgg cttccgacat gatgggttctc ctgaaatcct tctttgattg 480
ccataaagaa ttccagacgg tccattctac attttctcag aatcctacgg aggaaagatg 540
gctgctggca tcagtgtaga actttacaag gctgttcagc aagggacat taagtgaac 600
ttttctgggg ttgctttggg tgactcctgg atctccccg tggattcagt gctgtcctgg 660
ggaccttacc tgtatagtat gtctctcctt gataatcaag gcttggccga ggtgtccgac 720
attgcagagc aagtccttga tgctgtaaac aagggcttct acaaggaggc cactcagctg 780
tgggggaaag cagaaatgat cattgaaaag aacaccgacg gggtaaactt ctataacatc 840
ttaactaaaa gcagcccga gaaagctatg gaatcgagcc tcgag 885

```

<210> 808

<211> 275

<212> DNA

<213> Homo sapiens

<400> 808

```

gaattcgcgg cgcgctcgac ctcaccatga tcgccatgct cacagtgtcg ctataccttg 60
gtcttattct ggaacccagg actgcagtac aggcaggaca cctcccaaag cccatcatct 120
gggctgagcc aggtctgtg atcgctgcgt atacatctgt gattacctgg tgcagggtt 180
cctgggaggg ccagtattat catctgtata aagagaaaag tgtaaatcct tgggacactc 240
aagtcctctt ggaaccagg aataaggccc tcgag 275

```

<210> 809

<211> 584

<212> DNA

<213> Homo sapiens

<400> 809

```

gaattcgcgg aaagaggcct actcttttgc ataacacatg tctacaatga ttcttaagtg 60
cctcctggcc tcccccttgc tgcccagcct tctcttccca agttttccat cttgttcttt 120
tactcttcc tcacgagaaa tgccctccac tcccttccat atgctgacca gttctggata 180
ccacaagct tctccttttt ggggggtccc agtcactgcc tgtagtgtg caccagtgc 240
tgtgttagag ggggcattca tgggatcctg tgggcactga cgatacccg agccactgcc 300
caagagttag cttcttcccc gccagagcct caggggcccc taaattccct gtcgaccatg 360
gtgttcacga ggaagtgggg ccaggaggga gccctctggt aatctgtcag ttattagaga 420
acctctgaa tctggggagc tgggggtggt ggcttcttga agttgtaatt atttaacttt 480
gtattttgaa tagttttaga cttacagaaa agttgtaaga atagtataaa gaatttccta 540
catccttcac ccaaattttc caaatgttaa cattttggct cgag 584

```

<210> 810

<211> 600

<212> DNA

<213> Homo sapiens

<400> 810

```

gaattcgcgg cgcgctcgac tgggagtgtc gctttgggaa acatgaatct cctattcaga 60
ctagcagttt tccttagcct gtggtgttgt tccgatgctc agggacaaac aaaagaagaa 120
agcactgagg aagtgaanaa agaagttttg caccgtccag aaaactgtc caaaacaagc 180
aggaaaggag acttgctaaa tgcccattac gatggctact tggctaaaga cggctccaaa 240
ttctactgca gccggacaca agatgaaggc caccctcaat gggttgttct tgggtgtcga 300
catgtcataa aggggctgga cattgctatg atggacatgt gccctgggga aaagagaaag 360
gtgattatac cgccttcggt tgcatatgga aaagaaggct acgcagaagg caagattcca 420
cccaatgcaa ctctgatgtt tgagattgaa ctttatgctg tgaccaagg accaaggagc 480
attgaaacat ttaagcaaat agacacggat aatgaccggc aactctccaa agctgagata 540
gagctttact tacagaagga ctttgaaaaa gatgcaaac cccgtgacaa gatactcgag 600

```

<210> 811

<211> 124

<212> DNA

<213> Homo sapiens

<400> 811

gaattcgcgg ccgcgtcgac tgaagacttt gtgtggctgc atgacactct tactgaaaca 60
acggattatg ctggccttat tatccctcct gctcctacaa agccagactt tgatggccct 120
cgag 124

<210> 812

<211> 479

<212> DNA

<213> Homo sapiens

<400> 812

gaattcggcc aaagaggcct accttcattg actctctttt cggactcagc ccgcctgcac 60
ccaggtgaaa taaacagcca tggtgctcac acaaagcctg tttggtgttc tcttcacacg 120
gacgcgcatg aaacatatat ctagtattat tttctcacct atcatccacc tgaatttctt 180
taaaaaattt taaccctttt ttaaccacat ttagactgtt tctcttttta ttgtaagat 240
ataaatttta taagaggttt gtttcaaggg gattctttgt ttatagagca tcaacaatgt 300
tcaacacaca tctttcagtc accgtattgt ttagtgatat gttttttgct attccaaatg 360
ggattttatt cctattactt ttcattcatga aattcacatc atatggattg ggggtcccaa 420
ccccctggcc acagacaggt actggtctga ggcctgtag gaactgggct acactcgag 479

<210> 813

<211> 560

<212> DNA

<213> Homo sapiens

<400> 813

gaattcggcc aaagaggcct agaggaatga tcacgtcctt gctcatctgc attgtctggt 60
ttcctcttct cttcatgtct ttgatcaaat ctgtggctgg ggtcatcaac cagccccctg 120
acgtctccgt cacaattacc ctgggagggg atcagcctat tttcacaatg agtgcaccaac 180
aaagccagtt gaaagttagt gaccagcaga gctttaacaa atttatacaa gctttttcta 240
gggacaccgg tgctatgcaa tttctggaaa attatgaaaa agaagacata acagtagcag 300
aactggaagg aaactcaaat tctttgtgga ccatcagccc acccagtaag cagaaaatga 360
tacacgaact cctggacccc aatagtagct tctctgttgt ttttcatgg agtattcaga 420
gaaacttaag tctgggtgca aaatcggaaa tagcaacaga taagctttct tttcctctta 480
aaaatattac tcgaaagaat atcgctaaaa tgatagcagg caacagcaca gaaagttaa 540
aaacaccagt gaccctcgag 560

<210> 814

<211> 579

<212> DNA

<213> Homo sapiens

<400> 814

gaattcggcc aaagaggcct agcttgatta taagatcggg tgcttaactt ctctgaaaca 60
ggctcctctg cagaaggaca gattggctat gatgatctga ttagacgacg aggagaagca 120
gcctggccta gaaggtgctc agtacgtggc agcgggtgat gtcacgtctt tcagggtgcga 180
gagaggctgg ggtcagcgac ctggggcttt ctttgtatca ttttgaag aaaggtaaaa 240
ataccacagg cgagaacaag cagcaaaggg cggatgagat ttttcatctg cagctttgaa 300
ttgatacctt taagtattga gctattcttt tgttaggaca gaacacgtta ttccattaga 360
agagaacatt ttgggggtgg ggaagtgttc cactcctgt gtgggggtgac agttacacgc 420
atgtcacatc agcagtctga ggaggagggg gagaagggcc gggctggata ctttcagcct 480
cttcacgcga ctccaggcac caagtgaag ggcaggaggt tttcattatt tagggaatgc 540
agccctggtg tagaggacac ctcgcgagga catctcgag 579

<210> 815

<211> 618

<212> DNA

<213> Homo sapiens

<400> 815

```

gaattcgcgg ccgcgctcgac ccgggggatca ccatggcggc ctcattggtg gggaagaaga 60
tcgtgtttgt aacgggggaac gccaaagaagc tggaggaggt cgttcagatt ctaggagata 120
agtttccatg cacttttggtg gcacagaaaa ttgacctgcc ggagtaccag ggggagccgg 180
atgagatttc catacagaaa tgtcaggagg cagttcgcca ggtacagggg cccgtgctgg 240
ttgaggacac ttgtctgtgc ttcaatgccc ttggaggggt ccccggtccc tacataaagt 300
ggttttctgga gaagttaaag cctgaagggt tccaccagct cctggccggg ttcgaggaca 360
agtcagcccta tgcgctctgc acgtttgcac tcagcaccgg ggaccaagc cagcccgtgc 420
gcctgttctag gggccggacc tcgggccgga tcgtggcacc cagaggctgc caggactttg 480
gctgggaccc ctgctttcag cctgatggat atgagcagac gtacgcagag atgcctaagg 540
cggagaagaa cgctgtctcc catcgcttcc gggccctgct ggagctgcag gagtactttg 600
gcagtttggc agctcgag                                     618

```

<210> 816

<211> 164

<212> DNA

<213> Homo sapiens

<400> 816

```

gaattcgcgg ccgcgctcgac ttcaaactct gtgttaaaaa ggagcctttt cctccttctg 60
gaagtgtctc tgattaaatt ttaagcatt aaaatatgct gccccatttt ctaataatgc 120
agtatataat acaactccca ttactaacta atgtcaact cgag                                     164

```

<210> 817

<211> 719

<212> DNA

<213> Homo sapiens

<400> 817

```

gaattcggcc aaagagccta cgccaacttc cttctactct aataattaaa ataaaaataa 60
tacttgggag gtaactggaa taaaggttct aaaatcaaaa ccctctgaag ggtgaaaact 120
gggagcctcc tgttcccata gtaaccacag cactcagggc actgtctccc agcgctggag 180
tactgtctta tgaccagaga tcctaagcaa cctctgctca tctgagttgt ccaccatatt 240
gtgggcatga gtccttgaca atagtaata gcacctctgt tcccttattg ggtaaatgat 300
tttccaactc tgggaatgtg tagaattcat tatggaaata atgcaataat tcaaatccat 360
aatattgata ctttcatggt aagtttagga ctaatcttgc gtatgctcct taagtgattt 420
gaatctttaa aaagcttatg attccaattt gaaatgtgaa attgatttta cgtttgatgat 480
ttgaagttag aaggtataag aatatttaac ttagctcatg aaaagtatta gactagattt 540
actataagtt taatgtatta gatttacaag agatgcttaa atatatgaga atgttttgtc 600
ttaattgggt ataactttgt catatcaatg atttgaagtg ctaaaataga aaattaaata 660
tgataaatta cacaagaagt ttagaatgtt taaaagattt taataaaca agcctcgag 719

```

<210> 818

<211> 100

<212> DNA

<213> Homo sapiens

<400> 818

```

gaattcggcc aaagaggcct aatttatatc ttggatgag tggtatgcgc cttggatctt 60
tctcatatcc agaattattg gcagatgctg cggactcgag                                     100

```

<210> 819

<211> 615

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (58)

<220>

<221> unsure
<222> (74)

<220>
<221> unsure
<222> (118)

<400> 819
gaattcggcc aaagaggcct aatttttatg tctatccagt agttattttt gcaaactnat 60
acaatagtac aaanggcaca gtgttgaaag atcttaattt ttgagtgaag cttacttnaa 120
agaagtcatt tccccccctg aatcttagtg taaaggcagc tgcagtctgc tgacagcttg 180
tggttatgct ctgatttact ggggaaggag gaggttgtag tattttaaat gcataataga 240
gcattcgttt cgtcatctgg aagcagagat ggaagaagct ggggggaaat gagagacatc 300
actgttgctt tcgtggaggg aagctttgta gcatgttatc agacagcagt gcatattgaa 360
gaaaatatct gttaggaatg catgtcacca gatgtatttt gctttcaaga atggtagaca 420
catcaaacaa gaatcagata aaagcctgag aaaaagatgt tcagaagaat actggagtta 480
ttcttttatgc ttcaactgcc ttacctctc ttggtacctt ccagagaaac aagtatagat 540
gtatttttag ctgtccgttt ccagcatcaa tatgacaaca tgattttgtc tttatatcag 600
taagcagcac tcgag 615

<210> 820
<211> 680
<212> DNA
<213> Homo sapiens

<400> 820
gaattcggcc aaagaggcct agcagacaga gatacatgat actcactgtt accattcttg 60
ctctctgtct tccaagccct gggaatgcac aggcacagtg cacgaatggc tttagacctg 120
atcgccagtc aggacagtgt ttagatattg atgaatgccg aaccatcccc gaggcctgcc 180
gaggagacat gatgtgtgtt aacccaaatg gcgggtattt atgcattccc cggacaaacc 240
ctgtgtatcg agggccctac tcgaaccctt actcgacccc ctactcaggt ccgtaccag 300
cagctgcccc accactctca gctccaaact atcccacgat ctccaggcct cttatatgcc 360
gctttggata ccagatggat gaaagcaacc aatgtgtgga tgtggacgag tgtgcaacag 420
attcccacca gtgcaacccc acccagatct gcatcaatac tgaaggcggg tacacctgct 480
cctgcaccga cggatattgg cttctggaag gccagtgcct agacattgat gaatgtcgct 540
atgggtactg ccagcagctc tgtgcgaatg ttcttgatc ctattcttgt acatgcaacc 600
ctgggtttac cctcaatgag gatggaaggc cttgccaaaga tgtgaacgag tgtgccaccg 660
agaaccctg tgtgctcgag 680

<210> 821
<211> 414
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (291)

<400> 821
gaattcggcc aaagaggcct acttatgttg ggattgcttt tggctgttat tgggtggactt 60
gtgtatcttc gaagaagtaa tatggaattt ctctttaata aaactggatg ggcttttgca 120
gctttgtgtt ttgtgcttgc tatgacatct ggtcaaatgt ggaaccatat aagaggacca 180
ccatagtcac ataagaatcc ccacacggga catgtgaatt atatccatgg aagcagtcaa 240
gcccagtttg tagctgaaac acacattgtt cttctgttta atgggtggagt naccttagga 300
atgggtgctt tatgtgaagc tgctacctct gacatggata ttggaaagcg aaagataatg 360
tgtgtggctg gtattggact tgttgtatta ttcttcagtt ggatagctct cgag 414

<210> 822
<211> 205
<212> DNA

<213> Homo sapiens

<400> 822

```
gaattcgcgg ccgcgtcgac gtgggaggaa ataggtgggc tgaagaggag gaaaaggaga 60
gctagctctg tggctgtgtt tcaaacagaa atatttgatt ttagtccaga aaaaaagagc 120
agtttggtta tttgaaatgc caagtttctt gggtttattt tgggttttgt tattgttttt 180
tggtaaagaa taccgttgtc tcgag 205
```

<210> 823

<211> 355

<212> DNA

<213> Homo sapiens

<400> 823

```
gaattcggcc aaagaggcct actttttgta atttaaacac tgagagaagc ccaaattggt 60
ttcaaagttg tattttttct tactgatata gcaaggatc tgagcacatc aagcttgaga 120
ttgcagggga gaagcaggaa cattactggc ttacaacaagg aaaggggcag ctattcagac 180
acgaataact gctgcactgt ttggtataaa ttgtcacaat ttcagaagag attcttagat 240
gttagtgaga aaaacatact taactttcct ttgcatttgt ttacattata aagaagtatc 300
tgctttattg gcatctgccc tgtcagtga ggtcaatttg aaagaggaac tcgag 355
```

<210> 824

<211> 328

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (32)

<400> 824

```
gaattcggcc aaagaggcct agctaatttt tnttgatatt ttagtagaca cggggtttca 60
ccgtgttagc caggatggtc ttgatctcct gagcttggtga tccgcccgc acggcctccc 120
aaagtgtctgg gattacacgc gtgagccacc gcgcccggcc tgtactgtta ttcttattgc 180
cctttttatac ccactagtgg ttgggaagtt attcattcaa catcttttag tgttattcac 240
tttttaaaaa gttgaagtac agcatacata gagaaaagtg tgtcctccag cttttttattt 300
tatttttattt tttttttagg cctctttg 328
```

<210> 825

<211> 101

<212> DNA

<213> Homo sapiens

<400> 825

```
gaattcggcc aaagaggcct actcccatcc ctccaaattc caggaaaaaa attttgagta 60
tgctgataaa ctactgcaa ggtctcatat actcactega g 101
```

<210> 826

<211> 394

<212> DNA

<213> Homo sapiens

<400> 826

```
gaattcggcc aaagaggcct aatcataaaa ttggaagtct tgtatgaatt ctttctcagt 60
cctgattctt tccttgttct ctttgcttat aggtgggtgt cggatgggtt acccttcagc 120
atttgttttg atctctcaga atgacatccc ggttcctcag agtggttgcca gtgctggagg 180
ccacattgca gttgggcagc aagggtcttg tagtgtgaag gacccaagta actgtgggat 240
gcctctgacc cctccacact ctccagaaca ggctatccta ggtgagagtg gaggtatgca 300
gagtgctgcc agtcacctgg ttcccaaga tggagggatg ataacgatgc acagtccaaa 360
gagatcgggg aagattcctc caaaactcct cgag 394
```

<210> 827
 <211> 323
 <212> DNA
 <213> Homo sapiens

<400> 827
 gaattcggcc aaagaggcct aaaggaagcc aatctaacaa tgtgtgagtt cagaaacctg 60
 tcagccaaaa tggggtagca gattttgatg attttgattg ttgaaggggc ccttgacta 120
 tcacttttca ttctttttga taggaagttt tcacacatgg aaagcctgga cctgtttggc 180
 ttatattcat acatacacac ataggtatat gtcaaaataa ctactttgta atttttttaa 240
 tagcattttg tgaacatttt ccatgtcatt aaatattatt ctacgatagc atttcccata 300
 tgtctttaga acacaaattc gag 323

<210> 828
 <211> 286
 <212> DNA
 <213> Homo sapiens

<400> 828
 gtcgagaaac ctctagtgtc acatataaag tgaggctgcc taacataaag actgagcgag 60
 gcacccactt atcaattaga cattaactca atttttcttc tacgttaagg agtcatttta 120
 aataagagct gtaaaatctt cctcctgtgt tccaagggat tgttttttac atccctcctt 180
 gcagtgtgcc agttcttctt ttggagagca ctgatctcag aaaaacggga agaggctgta 240
 ttctctgatt ggcagtatga aattaatatt cagggaagta ctcgag 286

<210> 829
 <211> 484
 <212> DNA
 <213> Homo sapiens

<400> 829
 gaattcggcc aaagaggcct aggttcagag cacaaatcta cagttagggt gcctgggttc 60
 cagtggcaga tctaccactt actataatag ttgtgtggcc ttgaattaa cctctccaac 120
 cagtttcttc acatgtaaaag tggggataat aatagtgcct gcctcaggat tactttgagt 180
 attatatgaa ttaatgtaca tacaattatt ataatagtac atgccatgtg gaagtgttat 240
 taatgttaat agtcatttcc attagcagca gcagcagcag attctccagc attcaccttg 300
 ttctccttgt gaagatcatt tgataagtct ctctctctcg ggtgttacag aatctgatta 360
 cctcaacagt tggttttcct gatttgttat ttgcaagtag caaatgtcat ctacaaagac 420
 agtactgttt cctagacttt cctaccactt tcaagtctac tgccagggaa aatgactact 480
 cgag 484

<210> 830
 <211> 321
 <212> DNA
 <213> Homo sapiens

<400> 830
 gaattcggcc aaagaggcct aagatcatga attatgacga atttcagcac tgttgagca 60
 agttcgtgta cagccaaaga gagctatttg agccttgga taatctgcct aaatattata 120
 tattactgca catcatgctg ggggagattc tcagggtgagg gtctccctcc aggetcatcg 180
 cctcgtcct ctcacctcct gctcatcctc ttgaggcctc cctctgttcc cagaccaggt 240
 cctctcctgg ccaggccctc ctgccttccc tctgtccccc tgctgcccct cgtggttaca 300
 ctccctcacc cactactcga g 321

<210> 831
 <211> 340
 <212> DNA
 <213> Homo sapiens

<400> 831

```

gaattcggcc aaagaggcct accggccttt gtacgatgcc taccagcctc agtactcttt 60
gccgtaccca ccggagcctg gcgcagcctc cctctattac caggatgtct acagcctcta 120
tgagcctcga tacaggccct atgatgggtg tgcgtctgct tacgcccaga actaccgcta 180
tcccagagccc gagcggccca gctcccagc cagccactcc tcggaacggc cacctcccag 240
gcaaggatat cctgaaggat actatagttc caaaagtgga tggagcagtc agagcgatta 300
ctatgcaagc tattactcca gccagtacga tatcctcgag 340

```

<210> 832

<211> 497

<212> DNA

<213> Homo sapiens

<400> 832

```

gattcggcca aagaggccta gcaatgaaca aggaacatca taatggaaat ttcacagacc 60
cctcttcagt gaatgaaaag aagaggaggg agcgggaaga aaggcagaat attgtcctgt 120
ggagacagcc gctcattacc ttgcagtatt tttctctgga aatccttgta atcttgaagg 180
aatggacerc aaaattatgg catcgtcaaa gcattgtggt gtctttttta ctgctgcttg 240
ctgtgcttat agctacgtat tatgttgaag gagtgcacac acagtatgtg caacgtatag 300
agaaacagtt tcttttgtat gcctactgga taggcttagg aattttgtct tctgttgggc 360
ttggaacagg gctgcacacc tttctgcttt atctgggtcc acatatagcc tcagttacat 420
tagctgctta tgaatgcaat tcagttaatt ttcccgaacc accctatcct gatcagatta 480
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<210> 833

<211> 380

<212> DNA

<213> Homo sapiens

<400> 833

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gaattcggcc aaagaggcct aatcagttct gcgaaggaga tgggttggtca gaagatgaag 60
tacagtatgg tgagcaggaa ctgtgagcac tttgtcaccc agctgagata tggcaagtcc 120
cgctgtaaac aggtggaaaa ggccaagggt gaagtcgggt tggccacggc gcttggaaac 180
ctgggttggt ctggatgctc ttttgcgatt aggagatacc aaaaaaaagc gacagcctga 240
agcagccaca aaatcctgtg ttagaagcag ctgtgggggt cccagtggag atgagcctcc 300
cccatgcctc cagcagcctg accctcgtgc cctgtctcag gcgttctcta gatcctttcc 360
tctgtttccc aactctcgag 380

```

<210> 834

<211> 235

<212> DNA

<213> Homo sapiens

<400> 834

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gaattcggcc aaagaggcct agctgaagat gcgagatatt gctgggcagg ccctggcttt 60
tgttcaggat cttgtgacgg ctcttctaaa ctttcatacc tacacagaac agaggattca 120
aatttttccct gttgattctg ccattgacac tatatctcca ttgaatcaga agttctcaca 180
ataccctcat gaaaatgcgt cctatgtccg ccctcttgag gaaggaacgc tcgag 235

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<210> 835

<211> 309

<212> DNA

<213> Homo sapiens

<400> 835

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gcgatcgaat tctagacctg cctccagcct gggcaacaag agttgtctca aaaaacaaaa 60
aagaaaagaaa gaaaaaaaca gccacagttt catcagcaca gcaaaaagggt tttgtttttt 120
gctcttggat tttgtcgttt ggtttttgct taatatcaaa tatccagtca gtgtaaactc 180
gtttataaatt tggctcctttg atttcaagga gctatgatgc agttcgttgt ggggatgtgt 240
tgtctccatg tcatacatgt gactttgtcc atgtttgcac ccagtccaag gaagacacaa 300
aacctcgag 309

```

<210> 836

<211> 271

<212> DNA

<213> Homo sapiens

<400> 836

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gaattcggcc aaagagaatt ctagacctgc ctcgagaggt gaccgcaaac tgcctccaga 60
gtacaacctt cccacacctt acgttgaaat gcagtcactc cagattgctg ccttcctttt 120
cacggctctgc catgtgggtga ttggtgtcca ggactgggtc acagacctca gtctctacag 180
gttcctgcag acagcagaga tgggtgaagcc ctccacccca tccccagcc acgagtccag 240
cagctcatcg ggctccgatg aaggcatcga g                                     271

```

<210> 837

<211> 422

<212> DNA

<213> Homo sapiens

<400> 837

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gaattcggcc aaagaggcct agaataaaca agcaaagaaa ctacttggtta cactcatgcc 60
ttctccagtc tgtattatatt gccagggtatt tgggaaacaa atttgaatga ggtgtcaacc 120
ccacccttaa agttgtctca gcatacttag agggatagaa aaataagtag ataattagca 180
catgacttca taaatcacat gtgtttatat ttatcatggt atgacagcat tagagaaggg 240
ataactaagtt aactttgcct gggttactaa gtattagcta taaaagttct aagatactat 300
tcttctctcg agagtttaat cactagggaa gacaggatgt gttatggaaa gaaaacatat 360
ataaaggcaa gaagatgaga atgtatatag tgttttcagg aagccgtaag aagatactcg 420
ag                                     422

```

<210> 838

<211> 448

<212> DNA

<213> Homo sapiens

<400> 838

```

gaattcggcc aaagaggcct agcagctcct tatcatgggg acaattcatc tctttcgaaa 60
accacaaaga tctttttttg gcaagttggt acgggaattt agactttag cagctgaccg 120
aaggctcctg aagatactgc tctttgggtg aataaacttg atatgtactg gcttctctgct 180
tatgtgggtgc agttctacta atagtatagc tttaactgcc tatacttacc tgaccatttt 240
tgatcctttt agtttaatat catgtttaat aagttactgg gtaacattga ggaacctag 300
ccctgtctat tcatttgggt ttgaaagatt agaagtcctg gctgtatttg cctccacagt 360
cttggcacag ttgggagctc tcttttatatt aaaagaaagt gcagaacgct ttttggaaca 420
gcccagagata cacacgggaa gactcgag                                     448

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<210> 839

<211> 295

<212> DNA

<213> Homo sapiens

<400> 839

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gaattcggcc aaagaggcct agtttacaat cattgttcta gacattatta gataatttta 60
atccagtaac ttcatTTTTT aattctgggt aaattttctt gtatcatttg ataatttcgg 120
cctcccaatc tttttctttt tctccttttg ttctatgctc cggggacatt ctttaactat 180
tatcttacia tcttccattt ggatttttgt tgccatattt ttaacttcca aatgcttcac 240
tgggctgggc gcggtggctc acacctgtga tcccagcact ttgcgtagac tcgag       295

```

<210> 840

<211> 333

<212> DNA

<213> Homo sapiens

<400> 840

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gaattcggcc aaagaggcct agaaatattt atcaaccatt ctttgctaaa gttatctaca 60
gtttggcaaa ggcaaaggaa aaaaatacac cagtagccat catattttga caatattata 120
agaagtaagt gctttgagaa ttcataagag aaagagaagc tttacatttg aggagctcaa 180
gaaacaattc acattaaata tatcatttga gattgacttt gataaaaaaa gtaatttttag 240
tggatgaaac tgggtgtgta tgaattcgtc agtgtgtgtg tgtgcgcatt tgtgtgtatg 300
tgtgtgtttt tgaggacaag gaagcaactc gag                                     333

```

<210> 841

<211> 605

<212> DNA

<213> Homo sapiens

<400> 841

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gaattcggcc aaagaggcct agggggagaa gaggaagagg ccgttgctgt ccaggaagag 60
gcgcttgccg ttctgggtgca ggacgagggc cagcatggcg aagaagtga gatgaagagg 120
atgaagattc ggccctcggg gaccaggtag cagtagtaca ggccactggg tgccaccagg 180
agcagggcag gccctggaat caagctctca gcttttagagg cagtaaagca gccgctgaag 240
tacatgaaga ggtatgaggaa gaaggggatg taccacatgc agtgaccag gtactcatca 300
taatagtaga gcagctcaaa ggagtcgacg agcgtctccg gcttgagatt cttgatgatg 360
gggttctcac ggacagacag gtggtgctgg tagccactga agagcaggcg gtggttgaca 420
gagtcaccca ccaggtggat gctggcaccg atgatgaaga tgatgatgct cacgtacgtg 480
atggagcgtg gcaggggtcg gggggaccgc tcgatgagct tgagcaagag aaagggcgtg 540
atgacgttgt aggccatgtg gaagtagtcc ccaacactgg gcttggttag tggaaaccac 600
tcgag                                     605

```

<210> 842

<211> 297

<212> DNA

<213> Homo sapiens

<400> 842

```

gaattcggcc aaagaggcct aatctcatcc aaattcctag gggctgatca ctcttctgtc 60
ctaaaaataa aacaaagcca aaacttctgc tcccttttga agcactacca tcttcttttc 120
ctccagagct ctgcccactg ttttactttc tccctccac ttcaggctaa agctcacttt 180
gctctgccag acctgttctc agcaaggatt cttttgtttt tttaaacctc cgtaatgatt 240
atcccatact attgtgtcct attttttctt ttttctatgt atctgactcc actcgag 297

```

<210> 843

<211> 362

<212> DNA

<213> Homo sapiens

<400> 843

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gaattcggcc aaagaggcct aggtgttttc atttggtgat caggactgaa cagagagaac 60
tcaccatgga gtttgggctg agctggcctt ttcttatggc tattttaaaa gatgtccagt 120
gtgggggtgca gttgttagaa tctgggggag gcctcgtaca gccggggggg tccctgagac 180
tctcctgtgc agcctctgga tttagtttta ccagctatgc catgacgtgg gtccgccagg 240
ctccggggaa ggggctggag tgggtctcca ccattactgc tgctggaacg accacgtact 300
acgcagactc gtttaagggc cgggtggacca tactcaagga cacttcggac gatacactcg 360
ag                                     362

```

<210> 844

<211> 298

<212> DNA

<213> Homo sapiens

<400> 844

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gaattcggcc aaagaggtag tcatggctct catgtgcaag aaaatgaagc acctgtggtt 60
cttctctctg ctggtggcgg ctcccagatg ggtcctgtcc cagctacacc tgcaggagtc 120
ggggccaggg caggtgaagc ctccggagac cctgtccctc gcctgcactg tctctgctgg 180
taccatcagc agtgggaggg atcagtgggg ctgggtccgc cagcccccag ggcaggggact 240

```

agagtggatt gggcatgtct tttctactgg gagaccctac tacaaccctg ctctcgag 298

<210> 845

<211> 385

<212> DNA

<213> Homo sapiens

<400> 845

gaattcggcc aaagaggcct aattttaagt atttgcaata aatatatgta tatagattgt 60
atgtattcct atattcttat ttttcatttt attattaagt aaaagatcat taaaagtga 120
aataaaaacc ttggagtgtt ttggtgaatc ttgagggtta acatacatct gagagtggcg 180
tggttaagag tcctcagtta ctgccttata ctctatggg atgggttcca cagattgtat 240
ggaagagagt aaaatgagga acttggtgat aaatcagggt agtgtatttc ttttgaatt 300
taagtaaac tgattaaatt ttccttatct gtctgtctcc atgttttctc ccttaatctg 360
ttttgtctcc taacccccac tcgag 385

<210> 846

<211> 313

<212> DNA

<213> Homo sapiens

<400> 846

gaattcggcc aaagaggcct agggattttg ctactaatt taaactgaaa tgctgggtgc 60
tactagaagg atcctattcc ttgtcagttg ctggcagaat tcccttgcca acctcccaa 120
ccacacaaaa tccttcctcg ctggttagggc ctacatttc tgcaaaagta tccctttgac 180
cctggccggg ctgggccata ctaatgtagt ttcttatctg ttggattatc caaataatgt 240
tctgtcagtt ccaccacag atgtgtctca gctccctcca ccttctcaag atcagtctca 300
ggtaagctc gag 313

<210> 847

<211> 268

<212> DNA

<213> Homo sapiens

<400> 847

gatgcgagcg gctggaactc tgctggcctt ctgctgcctg gtcttgagca ccaactgggg 60
cccttcccca gatacttgtt cccaggacct taactcacgt gtgaagccag gatttcctaa 120
aacaataaag accaatgacc caggagtcct ccaagcagcc agatacagtg ttgaaaagtt 180
caacaactgc acgaacgaca tgttcttgtt caaggagtc cgcatacaca gggccctagt 240
tcagatagtg aaaggccgga acctcgag 268

<210> 848

<211> 306

<212> DNA

<213> Homo sapiens

<400> 848

gaattcggcc aaagaggcct attgaattct agacctgcca cagtaatgct atatatattct 60
gagcattggt tttctctaga taattttata tttttgagta taccacctt ccaagtgttt 120
tttgttttgt tttgcttgt tttgttgtt gttgtttga gacagggtct cactgtgtcc 180
cccaggctgg agtgcagtgg cacaatgacg actcactgca gcctcaacct cctggggcca 240
agtgatcctc ccacctcagc ctctcaagtg gctgggacca cagaagtgca ccaccacgcg 300
ctcgag 306

<210> 849

<211> 516

<212> DNA

<213> Homo sapiens

<400> 849

```

gaattcggcc aaagaggcct aggtggacag aagtgccttt ctaatattta aagtacttaa 60
cagtaataat taggctgggc atggtgggtc gggcctgtga ttgcagcact ttgggaggcc 120
gaggcaggag gatacattga agctgggaga tggagaccag cgtgggcaat aaagtggagac 180
ctcatctcta ccaaaaaaag gaagggaaaa tagctgggtg gcctgtagtc ccagccactc 240
gggaagctga ggtgggaagg atcgctgag cccaagaatt caagttgtgg tgaccctgta 300
tcgtgccact gcattccgtc ctgggtgaca gagtggagacc ctgtctcgaa agaaagaaaa 360
aacaataatt ctggtatttc aatagagggt tggagacag ctggaatcta atctgcttga 420
agcagtcaaa cttgatggca ttttgtgagg cattatgctg gttgttcacc ccttgttata 480
ggttttcttc acgtattttac tccacatagt ctcgag 516

```

<210> 850

<211> 298

<212> DNA

<213> Homo sapiens

<400> 850

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gaattcggcc aaagaggcct acatttctgg caagcttcca ttttcttct gtttgacat 60
taatagcaat aatttttgga tattctggac taaaccgttt cttgggccac ttgaaataaa 120
aataccactt ttaaagtgcc tattcagttc attgagaacc agttaatccg tatccaagga 180
atcaccttca aaacaaacaa acaaaaaaaaa tcttgtaact tcagctatgt atatcagaaa 240
tatgacaacc ctactgtttt tacaattaga ttttgtatgg cagacaggaa cgctcgag 298

```

<210> 851

<211> 209

<212> DNA

<213> Homo sapiens

<400> 851

```

gaattcggcc aaagaggcct aattataatt ttgttgatt tgtttcctag gagcaagtgt 60
tcctgctgcc agtctcttcc tctttaggcg tggttgagaa aaagcagaaa ctttacataa 120
agctgtattt cttaatcctc ttttaattga aacttaagaa aatgaattta ttctgttata 180
tttatgtaac ttatttctctg gaactcgag 209

```

<210> 852

<211> 358

<212> DNA

<213> Homo sapiens

<400> 852

```

gaattcggcc aaagaggcct atgtaaatcc aagtatcact actgttttcc tcttcataat 60
gcccttaaag caaatatttt ccttgcttcc tataatcgga aagaggattc tgagagtatc 120
ttggtcccat accactttat tttttgtct tttcttttcc tccccctctg ggagaacaga 180
gtctcactat gttgcccaagg caggtcttga actcctgggc tcaagcaatc ctctttcttc 240
tatctcttta agtgcctgaga ttccaagtgt gagccaccat accactttaa actccctaaa 300
gggagggtcc ttatctgcaa ctcccacagc ccccccgcc ctatccccac aactcgag 358

```

<210> 853

<211> 261

<212> DNA

<213> Homo sapiens

<400> 853

```

gaattcggcc aaagaggcct atattaatca ggactttgtg ggggacagaa gccaatttaa 60
aactatctta ggcaaagggt agaattttgt atagggatgt taggtttctc aactaataac 120
caaaccatga gcagggtgga atgcatctgg ttcttaggga tgattttgat gctgtcagag 180
cactctttca gtttatttca ttctctcat tgcgcattgt cagaaagcat aatccccagc 240
aactctctag agacgctcga g 261

```

<210> 854

<211> 242

<212> DNA

<213> Homo sapiens

<400> 854

```

gaattcggcc aaagaggcct acacaaaaga aggtgaggtc tcagttatag cgaggacccc 60
ctactcattc acagaggttc cctgcagagc gtcccacccc agtgatgccc agtgcattggc 120
actgccccac cctggtcctt ctcagcagca tgtttagcatc gctggtccct gccagcccc 180
ttctctgtcc ccatttcctc ttctctcctt gtccctcctc cccccagcac tcgccccctcg 240
ag                                                                 242

```

<210> 855

<211> 242

<212> DNA

<213> Homo sapiens

<400> 855

```

gaattcggcc aaagaggcct aactcagtgt gattttttaga aaaagaaaaa ctcggtgggc 60
tcatactctt tgacagtgtt ttgtgaataa taccctcccc aacaaccttc ccagtactca 120
actgctatgt aagaatgctt tcttatgttg taaatgtctc agtatatttg tgccctgggtat 180
ttgttcagtt tccttgtata tctcagggtc agaaagaatc aggcctttctc ccaactctctg 240
ag                                                                 242

```

<210> 856

<211> 296

<212> DNA

<213> Homo sapiens

<400> 856

```

gaattcggcc aaagaggcct acgagaattg gggcagggtc ttcccatgct gtttcatgat 60
agtgaatgag tctcatgaga tctgatggtt ttgaaaacag gagttgtcct gcacaagctc 120
tctctctttg tttgctgcca tccacataaa atgtgacttg ctcctccttg ccttctctcca 180
ggattgtgag gcctccccag ccattgtgga cagtaagtcc aataaacctc tttcttttgt 240
aaattgcccc gtctcaggta tgtcttcac agcagaatga aaatagacgg tttagg      296

```

<210> 857

<211> 324

<212> DNA

<213> Homo sapiens

<400> 857

```

gaattcggcc aaagaggcct agtggaatc atcttatttc ttttttcaat tttaaaggct 60
tcctgtcttt ttacccttgt atattatcag tgaaaaggat caacagttaa tttgagccaa 120
gtaataaaaag aaattctgca tttgtcacga agacaattta tggtagacag ataaatacac 180
agattacagt gtaaagtctc catttaacct gtttataaaa gatacaaggc cacactaaac 240
tactcagtggt gatttatata ttccatccac ttgaaacaat aaacagtaat gtatccaaga 300
agattatgtg tcctatgtct cgag                                                                 324

```

<210> 858

<211> 252

<212> DNA

<213> Homo sapiens

<400> 858

```

gtggacctcc tgcacaagaa catgaaacac ctgtggttct tcctcctcct ggtggcagct 60
cccagatggg tcctgtccca ggtgcagctg caacagtggg gcgcaggact gctgaagcct 120
tcggagaccc tgcctccac ctgcygtgtt tatggtgggt ctttgaccgg gtactactgg 180
gcctggattc gccagcccc aggggaagggg ctggagtgga ttggcgagggt cagctttagt 240
ggaggactcg ag                                                                 252

```

<210> 859

<211> 294
 <212> DNA
 <213> Homo sapiens

<400> 859
 gaattcggcc aaagaggcct actcatggac cgcctgcaca agaacatgaa acacctgtgg 60
 ttcttctctc tgcctgggtg agctcccaga tgggtcctgt cccaggtgga actgcaccag 120
 tcggggcccag gactcgttaa accttcggag atcctggccc tcacctgcac tctctctggt 180
 ggctccatcg ctccattatta ttatttttgg gtccggcgcc ccgccgggaa gggactggaa 240
 tggattggaa gtgtctttgt cactgggacc tcaaagacta atccctcgct cgag 294

<210> 860
 <211> 332
 <212> DNA
 <213> Homo sapiens

<400> 860
 gaattcggcc aaagaggcct acaatcttca tcatgacctg ctccctctc ctccctcacc 60
 ttctcattca ctgcacaggg tcttggggccc agtctgtatt gacgcagccg cctcfaatgt 120
 ctgcggcccc aggacaaaag gtcaccatct cctgctctgg aaccagctcc aacgttgagg 180
 cacattatgt atcctgggtat cagcaattcc caagatcagc ccccagactc gtcatttatg 240
 acacttctgc gcggccctca gggattcctg accgattctc tggcgccaag tctggcacgt 300
 ctgccaccct gaccatcacc ggaccactcg ag 332

<210> 861
 <211> 291
 <212> DNA
 <213> Homo sapiens

<400> 861
 gaattcggcc aaagaggcct attcttgttc aacttctaaa gagaaattgg agaagataaa 60
 actggacact ggggagacca caacttcatg ctgcgtggga tctcccagct acctgcagtg 120
 gccaccatgt ctgggtcct gctgcctgta ctttggctca ttgttcaaac tcaagcaata 180
 gccataaagc aaacacctga attaacgctc catgaaatag ttgttcctaa aaaacttcac 240
 attttacaca aaagagagat caagaacaac cagacagagg catggctcga g 291

<210> 862
 <211> 208
 <212> DNA
 <213> Homo sapiens

<400> 862
 gaattcgcgg ccgcgtcgac gattcttatt ctcttgggga atagtctaga ttttaaaaca 60
 ttttcttctg ctccctagaa tgcctgcatt tttttgttt ttgatacggg gtcttgctct 120
 gtcacccagg ctggagtga gtggcgcgat ctacagatcat tgcaacctct gcctcccgta 180
 ttcaagcaat ctccccaccc tcttcgag 208

<210> 863
 <211> 271
 <212> DNA
 <213> Homo sapiens

<400> 863
 ggagaaaatt tgtaacaact ctgagcacat gctgggtgaa gtcacagctc aaggaaagat 60
 aaagctgggc ggaaggaggt gtgcgtggct tctggggtgg gaccagagg ggaggctctg 120
 ggacaggggc tggggttcag tgccagggcc ctgaggaaga aatggggact gatctcaaaa 180
 ttccagaatt cctgtacat ctgttcacgt gcttgtgtcc aggtgtgact tgtaactgt 240
 ctagtgtttg cattaaataa tgacactcga g 271

<210> 864

<211> 235
<212> DNA
<213> Homo sapiens

<400> 864
gaattcggcc aaagaggcct aaaaaaacia atttagttcc acacatcgta ctgtatacaa 60
ttccatgttt ttgttttttt gtttgtttgt ttgttttaga caggttcttg ctctgtcacc 120
cagtctggac tgcagtggta tgatcatggc tcaccacggc ctcaacctcc tgggctcaag 180
caacctcct gcttcacct ctgtggtagc tgggaccgcy gacacgcaac tcgag 235

<210> 865
<211> 153
<212> DNA
<213> Homo sapiens

<400> 865
gaattcggcg ccgcgtcgac ggtaacttgt tccctaaact gtccttatag ttaaataatat 60
atattaaaaa aaactataag taaaataaac attcagattg tatagcatag gctgatgcat 120
tttaaaacia tatttacaat attaccctc gag 153

<210> 866
<211> 282
<212> DNA
<213> Homo sapiens

<400> 866
gaattcggcg ccgcgtcgac cctaaaccgt cgattgaatt ctatacctgc ctcaagtcta 60
attctgtatc ctgaacctct cttaacacat cccctctgct ccagtcocat ggtaggcctt 120
ggctactgca gctgcctcct aacatgcttc ccggcttcta gtctctcccc acaccactca 180
gcagccttcc caaatggcag atcagcacct gaggccctgc tacagtccct gcaggggctg 240
cccgcaggcg acagcccaact gtgctttgct ggtttgctcg ag 282

<210> 867
<211> 243
<212> DNA
<213> Homo sapiens

<400> 867
gaattcggcg ccgcgtcgac ggggtttgta ggtggagctg catacctgtc agttttcccc 60
attatttcat catcagtcag aggtgacttt gacatgtcct ttctttgtcc agtggttact 120
ctgcaggcca ctgccctcac tactctggtt catgtcttct gtgtgctttt gttgttccag 180
ctttgccttt catgccctag tgatttcctt gttaaaatgc cacatccctt cttccactc 240
gag 243

<210> 868
<211> 188
<212> DNA
<213> Homo sapiens

<400> 868
gaattcggcg ccgcgtcgac cattctctta tgtggacatc acaatttacc tgttctccca 60
gcagtggata tttgtgttgt ttccagtcac ttgctgttat ctgagtgtt ataaatgatt 120
gtttctctta caccaggaat ttccattcct gggttatggg ttatgcttat tatgtcacc 180
aactcgag 188

<210> 869
<211> 198
<212> DNA
<213> Homo sapiens

<400> 869
 gaattcgcgg ccgcgtcgac ctctttgagt ctggagtctt acgttcttcg gtttttaggga 60
 atgctgtttg atgatttctt gacctttttt tcttcccttt ccagactcag gatactgggc 120
 ctcttagact catgtatttt tatttttatt ttctctctca ttctctggct ttctttgaaa 180
 cctcccccat acctcgag 198

<210> 870
 <211> 271
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (93)

<220>
 <221> unsure
 <222> (147)

<400> 870
 gctcatgtgc aagaaaatga agcacctggg gttcttcctc ctgctgggtg cggctcccag 60
 atgggtcctg tcccagctgc agctgcagga gtngggccca ggactgggtg agccttcgga 120
 gccctgtcc ctcacctgca ctgtgtntgg tgggtccatg aggagtagtg gttactactg 180
 gggctggatc cgcagaccc caggggaggg cctggaatac attgggagta tctataacaa 240
 tggggacacc tactataacc cgtccctcga g 271

<210> 871
 <211> 296
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (166)

<400> 871
 gaattcggcc aaagaggcta atggatctca tgtgcaagaa aatgaagcac ctgtggttct 60
 tcttcctgct ggtggcggct cccagatggg tctgtccca gttgcagctg caggagtcgg 120
 gccacaaact agtgaagcct tcggagaccc tgcctgtcac ctgcantgtc tctggtggct 180
 ccatcagcag tagtccccac tactggggct ggatccgcca gccaccaggg caggggctgg 240
 agtggcttgg gaatgtctat tatggtggca gtagttacaa caatccgtcc ctcgag 296

<210> 872
 <211> 275
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (251) .. (252)

<220>
 <221> unsure
 <222> (257) .. (258)

<400> 872
 gcatggacct cctgtgcaag aacatgaagc acctgtgggt tttcctcctg ctggtggcag 60
 ctcccagatg ggtcctgtcc caggtgcac tgcaggagtc gggcccagga ctggtgaacc 120
 ctteggagac cctgtccctc acctgcgggt tgtctgggtta ctccctcaga agtgggttact 180
 attggggctg gatccggcag tccccagga cggggctgga gtggatcgga agtatctatc 240

ataacggagt nnccttnnac aaccgcgtccc tcgag 275

<210> 873
 <211> 110
 <212> DNA
 <213> Homo sapiens

<400> 873
 gaattcgcgg ccgcgtcgac ctaggacccct aggaagaat gcaaagtttg acaacattat 60
 ttacacatgt tctgattgta acaataatc tcactgtatg gggctctcgag 110

<210> 874
 <211> 264
 <212> DNA
 <213> Homo sapiens

<400> 874
 gaattcgcgg ccgcgtcgac gccaggagaa gtattggcag gcttttaggtt attaggtggt 60
 tactctgtct taaaaatggt ctggctttct tcctgcatcc actggcatac tcatggtctg 120
 tttttaataa ttttaattcc catttacaaa gtgatttacc cacaagccca acctgtctgt 180
 cttcagggtc caggccaagt tcattggacct gagatgctcg caagggggat ggtgcctctg 240
 gatccagttc aggcgtctct cgag 264

<210> 875
 <211> 268
 <212> DNA
 <213> Homo sapiens

<400> 875
 gaattcgcgg ccgcgtcgac attaaattag ataaggata ttcagcccct ggaatagtga 60
 gaatttaacaa ttggtaaatgc tttggcttac ctccctgacc ttgcataaac catgcatggc 120
 tgaactcacc ctgtccctgc ccagattttg cactgttgag attatgaggt acttcctaata 180
 ggttgctgca gctgcagccc ataaaacagc tctttgtgtg tatgaagaaa atcataataa 240
 gaggggccc cagagccaaa ctctcgag 268

<210> 876
 <211> 356
 <212> DNA
 <213> Homo sapiens

<400> 876
 gcctcgagct cctccctgaa gccacaaatc tgaggtcac atttgacgtc tctccttcct 60
 ttactttctat gtccaacagg ttaccaatc aatcttatag tcctttccag gggctgtgct 120
 cttggcctga ggtggtcttt tctctcctta cctggctgac agttacttgt ctctccgcag 180
 gggatcatgt tcggaccccc aggcagcccc actgctgctc cttggcactt tcacggccct 240
 ggcgtgtccc cgtcatagcc cttatcagtc ccttgatttt acctggtcac cctccatctc 300
 tgagggtatg ggggccagat ggctcttgct gccctgatgt tttgagggat ctcgag 356

<210> 877
 <211> 228
 <212> DNA
 <213> Homo sapiens

<400> 877
 gaattctaaa taaaaaattg ttcggaggct gcaatgcgtg tcaaacatgc agtagttcta 60
 ctcatgctta tttcgccatt aagttgggct ggaacctga ctttccagtt ccgtaatcca 120
 aactttggtg gtaacccaaa taatggcgct tttttattaa atagcgctca ggcccaaac 180
 tcttataaag atccgagcta taacgatgac tttggtattg aaacaccg 228

<210> 878

<211> 193
<212> DNA
<213> Homo sapiens

<400> 878
gaattcgcg cgcgctcgac ggttctgctt aatagtggaa taaaatcata caatccaaca 60
cataatgttt agtatgacta gacagcccca atacttggtg tacagtagat gtcattgag 120
ggtttaccaa atgatcacgt tcttctcata cctgatgcag accataaaaag gttcgagtct 180
ccctccctc gag 193

<210> 879
<211> 263
<212> DNA
<213> Homo sapiens

<400> 879
gaattcgcg cgcgctcgac gagttcccat tctgagcatc ccaggagaag caaggacccc 60
ttttaaactc tgtcagaacc tttctctctt gggttcattg tcacattact gaatttcagt 120
ttttctgtga tatgctgaaa ccccttattt tctgtgaact ttgtagaatt tccctttggt 180
ctcaggaggt agcccttgat gctagagagg cttcagaact gagctctacc tttccccaga 240
tcccagggg ggaggccctc gag 263

<210> 880
<211> 237
<212> DNA
<213> Homo sapiens

<400> 880
gaattcgcg cgcgctcgac ggaaattcta ggtgacttgc taattgtctt atttggata 60
ctcccatttc tactaaagaa ttagtatctt tggataaaaa ataaggaggc agaccagttt 120
taciaaatagc tgctggccag gagaataaca gtttctgcca ggtgagcagt taaaaaaaaag 180
gcagactgga aaaataactg tggaaatggtg tttcttattt acaaggcatt actcgag 237

<210> 881
<211> 289
<212> DNA
<213> Homo sapiens

<400> 881
gaattcggcc aaagaggcct aataaagaag taattagatt caacactcag atcactactt 60
agtttagatt acattaagat tgttttgttt ttgaatgggg gatagaaaac cattttcctt 120
ttattttatt tacttatttt tgagacagag tctcgtctctg tccccaggc tggagtccag 180
tggcatgcct cggctcgtg caacctccac ctcccaggtt caagcagttc tccctgcccc 240
accctccgag tacctgggat tgcaggtgcc tgacaccact gtccctcgag 289

<210> 882
<211> 260
<212> DNA
<213> Homo sapiens

<400> 882
gaattcgcg cgcgctcgac ctaaacgctc gattgaatta gacctgcctc gaggacagcc 60
tgggtgacaa agcaagactc tgtctccaaa aaaacccata aaaaaacaaa gaaaccccaa 120
caaaattgtg cattaacat atggatctgc ttttctgggt tgtgttcaact tccctgcctg 180
gcttgtgctt ctgtcctgtg ctacccctc caggccttc ctgcctggat cttgcccctc 240
acctctgccg gcacctcgag 260

<210> 883
<211> 357
<212> DNA

<213> Homo sapiens

<400> 883

```
gaattcgcg cgcgctcgac atcagcccat ttttgtttct acatctgtgt gtgtagagct 60
ctggaataga attgttaagt ctgagcaaga aaaagcatag cgggttaagg acaagtgaaa 120
cgaagagaac cctctgtccc tggcagaatc tgcattgaca tttcttgtct gtccttgtct 180
ctcttcttcc tgtctggccc attgcagaga gtattggaag tttccaacca ttggtgggtac 240
tctatgtcca tcctacctcc tttgtgaaa gacagtgtgg cagcgccctt gctgtctgcc 300
tactaccctg actgtgttgg catgagcccc tctgcacca gcacaaaccg cctcgag 357
```

<210> 884

<211> 144

<212> DNA

<213> Homo sapiens

<400> 884

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gaattcgcg cgcgctcgac cctaaaccgt cgattgaatt ctagacctgc cttttcccca 60
ctattccatt agaccccaca aatgttagtt ttgtgtgtgt gtgtgtgtgt gtttttaate 120
actgtaaccg gatgcaggct cgag 144
```

<210> 885

<211> 189

<212> DNA

<213> Homo sapiens

<400> 885

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gtgtctttct gcatgtctct ttatgtctct atgtgtatct atctctctca gtctctcata 60
caagcataca cacactcagg atacctcgat ccagcagccg gagcaagcgg agataccaga 120
gataccactg gtcccagaag cgggtccgtca tcccacctg aactcatcct tcacagccag 180
tccctcgag 189
```

<210> 886

<211> 221

<212> DNA

<213> Homo sapiens

<400> 886

```
gaattcgcg cgcgctcgac actttgctta tgattttttt tttaattagc ctttgagtgc 60
tttttttct tctgtcttac aagaatttca aatttttcta gaatccaact taccagtgtt 120
ttcctttaat gtggtggttc ttageccctg ctatgcacta tacacaggct tttatgttta 180
caaagctccc aagtgattct cctgtgacac tgaccctcga g 221
```

<210> 887

<211> 250

<212> DNA

<213> Homo sapiens

<400> 887

```
gaattcgcg cgcgctcgac gctggaagct ttgaagatg gtttttgtgg gggcatgggtg 60
gctttatgtc tttatgcctg tttctgttgc tgggagtctc cagggggcac agtgtgggaa 120
tcacatgcat gctctgcccc tccctgcttg tagaggggag gggacaggat gggtaaaagt 180
gggcgtgccc tccagcaatc ccggttgtca tccagcacgg acttcatcac tcctctgcca 240
tcccctcgag 250
```

<210> 888

<211> 269

<212> DNA

<213> Homo sapiens

<400> 888

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gaattcgcg cgcgctcgac cctaaaccgt cgattgaatt ctagacctgc ctccagtgtc 60
ttctgaaacc tttggggctg acacaagatc ctttagtggt tgggatgacc tctttcctgc 120
agacttcttc ccttatccct aactcatgca tggaaaacgt ttgtcaggct ggtttccgca 180
gcctcctgca cctcaacatc acgctcaccc ttttgggttt agcccagtgt tatttagcaa 240
atctctccag ctgcaaggaa ggtctcgag 269

```

<210> 889

<211> 264

<212> DNA

<213> Homo sapiens

<400> 889

```

gaattcgcg cgcgctcgac cagagtaa at gcaacatttc ctctgctaca tttccacaat 60
tctcactgct gttctaccag gcctggcatg ttttatcccc agggactttg catttactat 120
ttcctctgcc tgcacaattg tatacctgag gcatacatgg ctagtctctc cagttccttc 180
aggtcttcaa cctccaaag tcacctcac acagtgaagc cttccctggc catcttacct 240
acaatttcaa cccaaacact cgag 264

```

<210> 890

<211> 624

<212> DNA

<213> Homo sapiens

<400> 890

```

gaattcgccc aaagaggcct acccttcccc cgcgctccc gccgcctctc taaggagggt 60
atcctgcctc ccagcgccct ggatggggct ggcaccagc ctgggcagga ggccactggc 120
aacctgttcc tacatcactg gccctgcag cagccgcac ctggctccct ggggcagccc 180
catcctgaag ctctgggatt ccgctggag ctgaggaggt cgcagctact gcctgatggg 240
gagagactag cacccaatgg ccgggagcga gaggtcctg ccattggcag cgaggagggc 300
atgaggggcag tgagcacagg ggactgtggg cagggtgtac ggggcggagt gatccagagc 360
acgcgacgga ggcgcggggc atcccaggag gccaatattg tgaccctggc ccagaagggt 420
gtggagctgg cctcactgca gaatgcaaag gatggcagtg gttctgaaga gaagcggaaa 480
agtgtattgg cctcaactac caagtgtggg gtggagtttt ctgagccttc cttagccacc 540
aagcgagcac gagaagacag tgggatggta cccctcatca tcccagtgtc tgtgcctgtg 600
cgaactgtgg acccccaact cgag 624

```

<210> 891

<211> 790

<212> DNA

<213> Homo sapiens

<400> 891

```

gaattcgccc aaagaggctt acttaccctt tgctctgaat gtgtgggtta tgaccctcta 60
tgagcaaagg aatgagatta ctaggctttt cagaattaat gtttaaagag taagagggtc 120
agagggaagc cctgcaggat aagtgaagaa cagccactat ttgtgtgtaa gaaagtaaga 180
catccagttt gactatttgg aggccttcta ggtggatcct tgtctgttca gttagccgag 240
atcattggct gaagaaaagg cttgggataa atgcggtgct gctgtatcag cccatatcat 300
gtactgttgc ataagtgaat ttatacaagt ggacagttgc tatgatcaag ttttcaaact 360
ttccatctca ttctgagttt aatgctctga tagtggtcag gtagaaagtc aactccaatt 420
ccttgtggac attcaccttt acactttaac accctgaacc ctggctttct gccaaaatat 480
tttctttccc agtggctgga aactgattag ctatagggga gaacaaaggt ggctttgtac 540
tggggcatat tgcttttgag aatttagcag agagcattca aatggagtct ggatgtgatg 600
ccaaattatg cagatttggg gtttattttg gttaggtttc ccattagtag gtatgtaggc 660
aacgtaatac tgttctcagt ttatatggtc tggaaatttc cttataaatg ttatataggc 720
tttcttattt gattgtttta aaacacaaat atgtatgatt ttgagaaaac acattaccag 780
aaggctcgag 790

```

<210> 892

<211> 428

<212> DNA

<213> Homo sapiens

<400> 892

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gaattcggcc aaagaggcct acttcattctt gtccccgttt catgccgttt cactccaccc 60
gcgtcgcttt tctttctccc ccttgtaatt tttatgaggg cgaatcctat gaaatggctc 120
attggaccgt tttctgtggt tcagcctatt tgctgttggc caaataacta gctgtggctt 180
ggttttttgaa attctctgca gatcagagct atagagctaa gagtttgagt atgaagaagc 240
actgtttata catgcacgaa aagcgtgctt ttttgctttt ttttgttttg ttattgagat 300
ggggctctgt tctgctgccc tggctggagt gcattgatgc agtcgtagca gcctccacct 360
cccgggctca accgagcctc ccgcctcagc ctcttgagaa gctgggactc cagggggagg 420
ccatcacg 428
```

<210> 893

<211> 164

<212> DNA

<213> Homo sapiens

<400> 893

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gaattcggcc aaagaggcct agtgaagggg attttttttt tcttttaaac tgaagggtggg 60
gtacatgggtg cagctgggtc tgtcattgct cagcctagtt ggcgtccagc ttggccattt 120
cctgcacata gatgcctata ctctcgctgt caaaaagcac gaag 164
```

<210> 894

<211> 419

<212> DNA

<213> Homo sapiens

<400> 894

```
gaattcggcc aaagaggcct aggtaggcct gagtggggctc agaaatgtct tttcattgat 60
tctacaaaaa gagtgtttcc aaccctgtta attaaaacaa agattttaact ctgtgagatg 120
aatccaaaca tcacaaagca tttccacaga tagcttgctt ctagttttta tctactggata 180
ttccgttttt cactatagga ctcaatgagc tcagaaatgt tcttctcatg attctacaaa 240
aagcaagttt ccaagggtgat gaatcaaaac aaaagttaa atctgtgatg taaatccaga 300
aaacccaaag cattttaact tatagcttgt ttctactttt taacatggaa tattcagttt 360
ttcattatag gcctcagtga gctctgaaat gttccttagt agatgctaca aaaagagtg 419
```

<210> 895

<211> 460

<212> DNA

<213> Homo sapiens

<400> 895

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gaattcggcc aaagaggcct agggaaattaa tgctaaacta tgtccctgct cacttgctct 60
atgaccattc tggtaaatcc ttctatcagt cacttttctg ctataaaaaga tttaaaaagt 120
agcagggtgg gcttttctgtt ctccatata gacatttcag ccactgacta cctttggtga 180
aaagaaaaaa aaagatccca aaacatgctt tgaaatgaac agtccatcta agtgtctagt 240
ttgacaaata aatagttaga tgctttcttc atacttgata ttttttagtgc aaaatataac 300
tggttatggt acttattaca gttgaaattg ctatttatatg attcatgact tattaggatg 360
attgaggctc atgattacag ttttggtttgc atatgtacct caaggaccta cagggtatgt 420
aaggtacttg cttgctttga atacctcttt ccacctttac 460
```

<210> 896

<211> 319

<212> DNA

<213> Homo sapiens

<400> 896

```
gaattcggcc aaagaggcct agcaatggaa tgggtaatac ataaattaaa tgctgagatt 60
gaagaactga cagcctcagc aagaggaacc ataaggactc caatggcagc agcagcggtt 120
gcagagatgc ggccgctttt tttttttttt ttttttgata agttggtgta aggctatgtg 180
```

acttgatcaa aacagatgca gggcctctaa ataaaaggga tcatctgaaa ttaatgttgt 240
 ttgaaattac tatctgattt tgagggttcc agtatttctg tgaaaattca acaagaactc 300
 cttggaaact ggtctcgag 319

<210> 897
 <211> 601
 <212> DNA
 <213> Homo sapiens

<400> 897
 gaattcggcc aaagaggcct agacacggct ggaggagaag tcccgggtaa aatgtgatca 60
 gtactggcca gcccgaggca ccgagacctg tggccttatt caggtagacc tggtagacac 120
 agtggagctg gccacataca ctgtgcgcac cttcgactc cacaagagtg gctccagtga 180
 gaagcgcgag ctgcgtcagt ttcagttcat ggcctggcca gacctggag ttcctgagta 240
 cccaactccc atcctggcct tcctacgacg ggtcaaggcc tgcaaccccc tagacgcagg 300
 gcccattggtg gtgcactgca gcgcgggcgt gggccgcacc ggctgcttca tcgtgattga 360
 tgccatgttg gagcggatga agcacgagaa gacggtagac atctatggcc acgtgacctg 420
 catgcgatca cagaggaact acatggtgca gacggaggac cagtacgtgt tcatccatga 480
 ggcgctgctg gaggctgcca cgtgcggcca cacagagggt cctgcccgca acctgtatgc 540
 ccacatccag aagctgggccc aagtgcctcc aggggagagt gtgaccgcca tggagctcga 600
 g 601

<210> 898
 <211> 676
 <212> DNA
 <213> Homo sapiens

<400> 898
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 agtaacatta gcgttaatat cagacattaa gttttaacta tatttggaaa tctttaaaca 120
 gttttgatct agtaaaacat acaaaatgca caaaatataa aatgttaggc tctgaatcca 180
 gaagaaaaaa agttctcaaa aacagtacca taaattagat tattctaaca ctatcaacag 240
 attgcaaggc atttggttat ttgggcagca tacctggtct aggaagtagt tgacatgtga 300
 tatggagaga tggggatcac ccaggaactc ttgttccaaa tcaagcagtg cttggcgata 360
 aggctgcaaa acagaatcca gccctgtgca gaaggccgc aggtagattc catgtaacct 420
 accttggccc tgttgagatg gatggtgatc ctgctgttgc acatggcccg tgtactgttc 480
 aatgaactca gtgaagcgaa tatagtctgt gccgagccgg cagagtcgat tcaggacact 540
 ggtctcactg ggttgaggga aagggaagtc ctgcgatacc tgacggccac tccgcttgtt 600
 ccaggtgaaa atggaccag ggtaccgct cagagccaag agcagttcgt ggatcattcc 660
 cacggcggac ctcgag 676

<210> 899
 <211> 391
 <212> DNA
 <213> Homo sapiens

<400> 899
 gaattcggcc aaagaggcct aacaggttct gtaagttacc tatttttttg gactttataa 60
 gttatcagca agcttcttgt tagtaaaggc atgataatga aacttgaatt catctacaaa 120
 attggatgtg cccatcaagg ggcctctaaa ccaatttaag cccaaagtta actaattaca 180
 atttctactg gtttttagtaa aactagcata gtcaaccaag taaacaaagt ccattgttaa 240
 tcttatttga gttagctaac attacattct agtaatgggt acacctaaat atatcatgac 300
 ttgagtttca ttacattcag acataaacta caaattccta atgtgcaaac tactgttgac 360
 atttttctta atcactgatg taccatacca g 391

<210> 900
 <211> 597
 <212> DNA
 <213> Homo sapiens

<400> 900

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gaattcggcc aaagaggcct aaagaatcac gagaagtcaa agaagcatcg ggaaatggtg 60
gccttgctaa aacaacagct ggaggaggaa gaagaaaatt ttccaagacc tcaaattgat 120
gaaaatccat tagatgacaa ttctgaggaa gaaatggaag atgcacaaaa acaaaagctt 180
tctaaaaaac agaagaaaaa gaaacagaaa ccagcacaga attatgatga caatttcaat 240
gtaaatggac ctggagaagg agtaaagggt gatccagaag atactaactt aaatcaagac 300
agtgcctaa aattggaaga tagtccccag gaaaatgtca gtgtcacaga gatcattaaa 360
ccatgtgatg atccaaaaag tgaagctaaa agtgttccta aaccctaaagg aaagaaaacc 420
aaagatatga aaaaacctgt cagagtacct gctgaaccac aaacaatgag tgttcttate 480
agctgtacaa cctgccatag tgaatttcca tctcggaata aactttttga ccatctaaag 540
gccacaggct atgcaagagc accttcatca tcgtctttta acagcgcaat cctcgag 597

```

<210> 901

<211> 326

<212> DNA

<213> Homo sapiens

<400> 901

```

gaattcggcc ttcattggcct acgcaggcct gagcaggcct gttgccagcc caaccccggtg 60
ccttggtctgt gaggggcaga gcatgagctg gcttagagcc ctgagtgggc accggcttgg 120
gaggggtcgg ggagttgact ccttccttaa ctgctctgcy cctggccctt gcctctacag 180
gagcaggtgg tgaggatggc tccgggcccc tgtggggcct ccccgaccga aaagcttcaa 240
ggacacgggg atgccagcct cttccccaag atgattttat tgaatgcaca caaagtctcat 300
ccttgggttt gcaaaaagtc ctcgag 326

```

<210> 902

<211> 537

<212> DNA

<213> Homo sapiens

<400> 902

```

gaattcggcc aaagaggcct atgccatagt gctgaaggta gaggtgtctg tgcaaaagcta 60
gtcatttgtt aacagcaatc agaagagatg ggggcaggca cacctgtcag aggtggcagc 120
agagctggca ggacaggagc gctgggctgg tctggtcagg tgagcatgtc ccagagacag 180
cagcaacaga gagccgtcca gcaggctgtg aggcagggtg atggtcctag ctcatctctt 240
ctttgttctt ctaccacata cactgtggtt ttaggaggct cctgagggtc accctgccag 300
ccgtactgtg ggtatccttg gtaggggtac ccttgaggag gtgggtaggg tcccccata 360
ggtcctggac ccattggttg tgggtgataa ggtgggtatg gggccgttgg accagggcct 420
ggatatgggt gagggttctc ttggttcacc ggggacctgt aaagtgcacc tctcctctcc 480
acgaaccgac tggataacgg tcgggtctga acctgaggag cccggaccag cccgcag 537

```

<210> 903

<211> 316

<212> DNA

<213> Homo sapiens

<400> 903

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gaattcggcc aaagaggcct agccagaaaa agaccagccc aaaagtgtc aacttctctc 60
agaaaacttt ggcacaaatg tggcctgtct gcaagcttgt gcaggagtg tttctcagga 120
gctatcagaa actatcctca ccatggtagc caattgcagt aatgttatga ataaggccag 180
acaaccacca cctggagtta tgccaaaagg acgtcctcct agtgctagca gcttagatgc 240
catttctcct gttcagattg accctcttgc tggaatgaca tctcttagta taggtggttc 300
agctgcccc ctcgag 316

```

<210> 904

<211> 687

<212> DNA

<213> Homo sapiens

<400> 904

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gaattcggcc aaagaggcct aggcttggat tctgtcggat ggacttggg ctagctgcgg 60
cggggctgga ggaggccaga taaccatgtc agccacagtt gtagatgcag ttaatgctgc 120
accctatcgc ggggccaaag aaatgagttt ggaagaacca aagaagatga ccagagagga 180
ctggagaaaag aagaaggagc tagaagaaca gcgaaaattg ggcaatgctc ctgcagaagt 240
tgatgaagaa ggaaaagaca tcaacccccca tattcctcag tataatttctt cagtgccatg 300
gtatattgat ccttcaaaaa gacctacttt aaaacaccag agaccacaac cagaaaaaca 360
aaagcagttc agctcatctg gagaatggta caagaggggt gtaaaagaga attccgtaat 420
tactaagtac cgcaaaaggag catgtgaaaa ttgtggggcc atgacacaca aaaagaaaga 480
ctgctttgag agacctaggc gagttggagc caaatttaca ggtactaata tagctccaga 540
tgaacatgtc cagcctcaac tgatgtttga ctatgatggg aagagggatc ggtgggaatgg 600
ctacaatcca gaagaacaca tgaaaattgt tgaagagtat gccaaagttg atttggcaaa 660
acgaacattg aaagcccagt tctcgag 687

```

<210> 905

<211> 557

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (130)

<400> 905

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gaacgtttcn tcccccttcc tctctctgtc ccttcatttc tcattagaat ggaagagggg 180
aagggtgcaga gggaaatgca gcaggaaaaag ccactttgtt ctgggagagc acttggctga 240
aaggcccagt agagcaggaa gcacaagtct cttaatcttc cagggcctca gttttcatca 300
tccacaaagt ggggtcagtg tgccaagatt ttagtgagtt gagagactgt cccaaagacc 360
acagagcttt ttgggaagct gttgctctaa aaaaatgggtc ataatgacaa ttaccaggag 420
gcatcagaca ctctgtgtcc actggctaga catgggttat ctctgtttcat gtccgaagct 480
ccccgcacc accctccttg cagagttgaa gaggtgctgt gagcagaaaa cctgccaagg 540
gaccagaac gctcgag 557

```

<210> 906

<211> 485

<212> DNA

<213> Homo sapiens

<400> 906

```

gaattcggcc aaagaggcct acttgcata agtatatctc ctgtcgtatt ttctttgtgg 60
tacctgtttt tactgcttta ctgtcagttt tcctgggggt ctgggggataa gcagatataa 120
acttgtatat tcagtcttcc acacttatct gagagtctc aaccattgtg tcttaagcaa 180
ttgataaagg acccaaaccc agagatcgaa accaaaagat tcagttaagg ggcagattgt 240
taggggcaat tttgctttcc tttttaacaa taaatttgaa ctgtgactga aaattggaat 300
ttcctatcag tctttaaaac tatcagtgcc tgattcagag attctggtgt cagtgcacag 360
ggattggcct agaaaatagc aattttttaa gctttccagg tgataccaat gtgcagccag 420
cccactgcta tatggacttt ggtcctaaaa ttctgcata acttaaaatg gctactttcc 480
ccgag 485

```

<210> 907

<211> 569

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (119)

<220>

<221> unsure
<222> (151)

<220>
<221> unsure
<222> (155)

<220>
<221> unsure
<222> (269)

<220>
<221> unsure
<222> (281)

<220>
<221> unsure
<222> (409)

<400> 907
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tcctctgcgc tggccaccgc ctctgacccc gcccccagtg cctgctctgc cctggcctnc 120
gggtgtgtctc tacggggcct tctcgtgtca ngacntcttt cctaccatcg cctcgggctg 180
ctcctggacc ctggagaacc ctgacccac caagtactcc ctctacctgc gcttcaaccg 240
ccaggagcag gtgtgcgcac actttgccnc ccccgctgc ngcccctgga ccactacctg 300
gtcaacttta cctgcctgcg gcctagcccc gaggaggcgg tggcccaggc ggagtcagag 360
gtggggcgcc cagaagagga ggaggcagag gcggcagcgg ggttgagnt gtgcagcggc 420
tcaggccctt ttaccttctt gcacttcgac aagaacttcg tgcagctgtg cctgtcggct 480
gagccctccg agggcccgcg cctgctggcg cccgctgccc tagccttccg ctttgtcgag 540
gtcttgctca tcaacaacaa caactcgag 569

<210> 908
<211> 504
<212> DNA
<213> Homo sapiens

<400> 908
gaattcggcc aaagaggcct acactcacta ttatttttca gttctttctt taccagcct 60
ttctccttca tgtgaaaatg ttcattcttc tctcctcctt gaagctctat tctttgtcat 120
atgtaactct ttatgctctg gttcttctct atttctgttt cttttttgtt ttctctatgg 180
gctctttttt tattcattac cttaaagttag gtattcccat ggtttcatcc ttgaccttac 240
tctacaaaca cgattttctat ttccctgatt tcatttctca tctgtatgct tatgaccttt 300
ctgtcaagta ttagattcac atatccaaat ggcagctact gcttcacctg gatgcctcat 360
agccatttca aatccaccta gtcattcaaa gtagaaaccc acaggtaact atgaaccccc 420
aaacaccacc ttcttaactt catatattta atgaagcacc aagctgtgac tcttctacct 480
cctgaatact actctccctt catg 504

<210> 909
<211> 440
<212> DNA
<213> Homo sapiens

<400> 909
gaattcggcc aaagaggcct acattaatcc ttccctggct gtatctgcct ccttgccaca 60
ggttatcatt attctaaata ttgtgaaagt ttctccatcc ctttaaaacta ttttaccata 120
tgtatgtata tacaccacac cacacatata tatactgaga accatctatg atttcatttt 180
cttttttata ttgctataaa cgaaattata ctctctatat atttcaatga catttcttta 240
ctcaatcttg tgactctgaa atttgctttt gttgatatgt gtggcagtaa tttgttcagt 300
tttcactcct ttacgtgttt cattgtataa acacatcata gtttattcat ccttacttct 360
gttgttggaat attttaaagt ttcttaggtt tctttttgtt gttcctgcta ttatttatgc 420

accacacaca tacactcgag

440

<210> 910

<211> 374

<212> DNA

<213> Homo sapiens

<400> 910

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gaattcggcc aaagaggcct acaggcattt gctgcccaac gtggccttgc agtattaaaa 60
catgtgctaa caccacgaat aaaggcaact cacgttgctt ttgattgcat gaagaattat 120
ttagatgcaa tttatgatgt tacggtggtt tatgaaggga aagacgatgg agggcagcga 180
agagagtcac cgaccatgac ggaattttctc tgcaaagaat gtccaaaaat tcatattcac 240
attgatcgta tcgacaaaaa agatgtccca gaagaacaag aacatatgag aagatggctg 300
catgaacgtt tcgaaatcaa agataagatg cttatagaat tttatgagtc accagatcca 360
gaaagaagct cgag                                     374
```

<210> 911

<211> 575

<212> DNA

<213> Homo sapiens

<400> 911

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gaattcggcc aaagaggcct acagacctct tccccacagc ctgcggcctct tccacggagc 60
cttctcctgc agggcgagag cgttcctcca gttgtgggtc tgggggtggt ggcattctcc 120
ctaaagggaag tggctccctct gtggcaagtg atgaagtctc cagctttgcc tcagctctcc 180
cagacagaaa gactgcgtcc ttttcgtcgt tggaacccca ggatcaggag gatttggagc 240
ccgtgaagaa gaaaatgaga ggagaacaca tccctttctc ctgtagatgg ggaccttgac 300
ctgaacgggc agttgttggg cgcacaaccg cgtagaaatg cccaaaccgt ccacgaggac 360
gtcagagcag cggctgggaa gccagacaag atggaggaga cgctgacatg catcatctgc 420
caggacctgc tgcacgactg cgtgagtttg cagccctgca tgcacacgtt ctgcgcggct 480
tgctactcgg gctggatgga gcgctcgtcc ctgtgtccta cctgccgctg tcccgtggag 540
cggatctgta aaaaccacat cctcaacaac tcgag                                     575
```

<210> 912

<211> 632

<212> DNA

<213> Homo sapiens

<400> 912

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gaattcggcc aaagaggcct agacctggtt tgtgaattat ggcctggatt tcacttatac 60
tctctctcct ggctctcagc tcaggggcca tttcccaggc tgttgtagt caggaatctg 120
cactcaccac atcacctggt gaaacagtca cactcacttg tcgctcaagt actggggctg 180
ttacaactag taactatgcc aactgggtcc aagaaaaacc agatcattta ttcactggtc 240
taatagggtg taccaacaac cgagctccag gtgttcctgc cagattctca ggctccctga 300
ttggagacaa ggctgccctc accatcacag gggcacagac tgaggatgag gcaatatatt 360
tctgtgctct atggtacagc aaccatttta ttttcggcag tggaaaccaag gtcactgtcc 420
taggtcagcc caagtccact cccacactca ccatgtttcc accttcccct gaggagctcc 480
aggaaaacaa agccacactc gtgtgtctga tttccaattt tttcccaagt ggtgtgacag 540
tggcctggaa ggcaaatggt acacctatca cccagggtgt ggacatttca aatcccacca 600
aagaggacaa caagtacatg gccaggctcg ag                                     632
```

<210> 913

<211> 359

<212> DNA

<213> Homo sapiens

<400> 913

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gaacttttagc cctgtcttct tttttagtgt tcagcactga caatatgaca ttgaacatgc 60
tgttggggct gaagtgggtt ttctttgttg ttttttatca aggtgtgcat tgtgagggtg 120
agcttgttga gtctggtgga ggattgggtg agcctaaagg gtcattgaaa ctctcatgtg 180
```

cagcctctgg attcagcttc aatacctacg ccatgaactg ggtccgccag gctccaggaa 240
 aggggtttgga atgggttgct cgcataagaa gtaaaagtaa taattatgca acatattatg 300
 ccgattcagt gaaagacaga ttcaccatct ccagagatga ttcagaaagc atgctcgag 359

<210> 914
 <211> 501
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (54)

<220>
 <221> unsure
 <222> (70)

<220>
 <221> unsure
 <222> (226)

<400> 914
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 ttgctatgtn ataaaaagaa caacaaatat ttaactctac ttcacgctat gtatgctgac 120
 gtatttgggg gtgaagtgtg ctaatgtctt catctatctt taaaatgcac caaaaaataa 180
 aaaaagatgg acaggtaaat ttttcttttt tgataaagca aatgtnacac aaaatgttgg 240
 aatctaactg ctactgtgtg tatacgctgc acagtctctt caacatttca tgtttgaaat 300
 ttgtcataat caactgaggg aggaggaaca aacaaaagat gcactctggct atttttgtag 360
 ggaagcttct cttctctgtc caacctccag cgtagaacct taaaaacatc aactatataa 420
 tctactctct catgccaaact ccttaaggac acacacttgt ccacactggt tccttatatt 480
 actgaccttg aaccaatttt t 501

<210> 915
 <211> 275
 <212> DNA
 <213> Homo sapiens

<400> 915
 gaattcggcc aaagaggcct agctctgtta atcctatgga accttttctt tgctccctca 60
 ggacctccag tcctctttca atctttgtcc tactaatgtg gccctggttg tctttacttc 120
 ctggcttcca tgctggcttg gggtccttat gccctccctc caccaggtt cactctctc 180
 ttctgtcatc atcactgttt ccattggccac actctagctc tatcaccctc agaaactgtg 240
 cttcccccac caggttccca tcaccatcc tcgag 275

<210> 916
 <211> 525
 <212> DNA
 <213> Homo sapiens

<400> 916
 gaattcggcc aaagaggcct aggtctgacg tgcgttttat ttttttcaag gattcagtga 60
 agtcagataa tcgaatatct ctcactctcac tggcagacat attcttcacc tggtctggtt 120
 ttagttctcg gataggacct agtgctgcat cttttgccaa agctgttagg tcacttctctg 180
 agtatccatc agtcattcta gcaagtgtgt ctagttcttt ttgggtcaat ggacttcctt 240
 gtttacataa cagattttta agcaaaagta gtcttgcttc ctcatttggt aaagacacat 300
 ataccggttt gatgaaacgc ctgagaacag cctcatcaag ctcttggtgc ctattagttg 360
 caccatttac aagtactctg tcactctccag cagactgtac accatcaaat tctattagaa 420
 attcagtttt taggcgtcta ctagcatcgt gctccctctc tcttctttca cacaaaaggc 480
 tatcaacttc atctataaaa attatagaag gttgaagttc tcgag 525

<210> 917
 <211> 707
 <212> DNA
 <213> Homo sapiens

<400> 917
 gaattcggcc aaagaggcct actcatacag ggacagccac catctgggtc aaggaagtct 60
 ggggttccctg ctgggtgggt ccattcctgcg atggagtga ccaggcgaga aaggatgacg 120
 atgttcttca tgttgacacct ggacatgccc caggaacaga gacttgccca ggtggcaaca 180
 ctggcacaga tgttgacggc tgcccaactg gtgccacact gaggaggag ccttggtgctg 240
 cacagggtcg ggcctctctt ccagtttctt tcctgcaggc atccaaatac cctggaaggg 300
 atttaacccc tgaattccag agggaaagaa gaagaacagt gaagaagtag aactgggttc 360
 tgatggggga gaggaaagtc ttagggacag ctgcaggcgg ggtctcaggc tgctccttgg 420
 caccagctac acagtagtga gctttcccag ctttaccgat gaggaagaag ttcaaataga 480
 tagacttcag cattttaatt atttctctat aaatgtattt atgtgtagta tgctagcacc 540
 agccagtaag ctgtgccaca catatgaatg ggaaagcgag gcagttgtgc tcgtgtgagt 600
 ttctgcaggc ttgtgggtaa ttacctgtg tgcacgcctg cacgtgcaga atagtcactt 660
 tctgctggtc agttttctta tccacccatg gtgcccacac actcgag 707

<210> 918
 <211> 509
 <212> DNA
 <213> Homo sapiens

<400> 918
 gaattcggcc aaagaggcct agaggatagt tagaggtctc agccacagaa atacattgtt 60
 gtgttctgct gttataactt aatttcaagg gtttcacaca aacactgaac ttgaacatag 120
 aaaccacttt tgttaagctg tggagttatt tttttaatac aattacttcc caaaacaata 180
 ttttctaaat tagtcatctc ccaagttctt tggcctcaat gtccttattt gtaaaataag 240
 aaaattgaat tcgatcattt ctaaggatct gccaaagaag accaattgca gggatctggg 300
 attgtttagt tttaatgttc cctgcagtaa atgagtgggt ggccacaagc cgatatcttc 360
 agtaccacca agctgacttt ttggtttctt cctcctctg tccttctggt gttcttgcaa 420
 gagatgtaga aatacagttt tatcttacta ggaggctaac tttagggagg catagcttct 480
 gaagatatcc tcaatctctt tgcacttctg 509

<210> 919
 <211> 376
 <212> DNA
 <213> Homo sapiens

<400> 919
 gaattcggcc aaagaggcct agagaactaa aaggaaattc agtttggatg aattagcagg 60
 tcctggagct gaaggcccct caaatttgaa atccaaaata aataaagtgt cttgtgaatc 120
 tggtcagcca gtgaaatcac aggggaaagg tgaagtggcc agtacaccct ctgacaattt 180
 ggatcctaag ttgactgccc ttgagccaag taagaccaca ggggctccca tttaccctgg 240
 cttcccaaaa gtcacagagg ttcatcatga gcagaaagcc tcaaactctt cagcatctca 300
 gagaagctta cagatgttta aggtgaccat gtccaggatt ctgaggctca aaatacagat 360
 gcaggaaaaa ctcgag 376

<210> 920
 <211> 529
 <212> DNA
 <213> Homo sapiens

<400> 920
 gaattcggcc aaagaggcct aagaaacaca aagaaagtta gaacaactcc gggcagagct 60
 ggatgagatg tatgggcagc agatagtga aatgaaacaa gaattaataa gacaacacat 120
 ggcacagatg gaggaatta aaacacggca taaggagaa atggagaatg ctttaaggctc 180
 atattcaaatt attacagtta atgaagatca gataaagtta atgaatgtgg caataaatga 240
 actgaatata aaattgcaag atactaactc tcaaaaggaa aaactcaagg aagaactagg 300

```

actaatttta gaagaaaagt gtgctctaca gagacagctt gaagaccttg ttgaagaatt 360
gagcttttca agggaacaga ttcagagagc tagacagaca atagctgaac aagaaagtaa 420
acttaatgaa gcacataagt cccttagtac agtggaagat ttgaaagctg agattgtttc 480
tgcatctgaa tccagaaaagg aactagaatt aaaacatgaa gctctcgag 529

```

<210> 921

<211> 651

<212> DNA

<213> Homo sapiens

<400> 921

```

gaattcgggc aaagaggcct agaaaatttg aagatgggtg ccacttctca gctccttgga 60
cttttgcttt tctggacttc agcctccaga tgtgacattg tgatgactca gtctccagcc 120
accctgtctg tgactccagg agatagagtc tctctttcct gcagggccag ccagagtatt 180
agcgactact tacactggta tcaacaaaaa tcacatgagt ctccaaggct tctcatcaaa 240
tatgctttccc aatccatctc tgggatcccc tccagggttca gtggcagtggt atcagggtca 300
gatttcactc tcagtatcaa cagtgtggaa cctgaagatg ttggagtgtg ttactgtcaa 360
aatggtcaca gctttccgta cacgttcgga ggggggacca agctggaaat aaaacgggct 420
gatgctgcac caactgtatc catcttccca ccatccagtg agcagttaac atctggaggt 480
gcctcagtcg tgtgcttctt gaacaacttc taccctaaag acatcaatgt caagtggag 540
attgatggca gtgaacgaca aaatggcgtc ctgaacagtt ggactgatca ggacagcaaa 600
gacagcacct acagcatgag cagcacctc acgttgacca aggacctcga g 651

```

<210> 922

<211> 210

<212> DNA

<213> Homo sapiens

<400> 922

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gaattcgggc aaagaggcct aagaaactgt tcaacagtcg ttaggttaga cgtaggaaga 60
ggaagacaaa tgaatatgca cttttcaacg tgggttatat taacagggtg gatgataatt 120
ggatgcagca caactgatgc tccaccaact acagctacaa ctacagatgc tacagcagtt 180
aaagattcac cggctacaac atcactcgag 210

```

<210> 923

<211> 741

<212> DNA

<213> Homo sapiens

<400> 923

```

gaattcgggc aaagaggcct actttggctt cagaagaggc tgtatttttt tcagattgta 60
ataaccaatt ttggatatat aaatactgtt tatgaaacat ttagtagaat ttattacttc 120
tggttaactac agctagaata aacattggat aaataaaatt catgaaatat agaaaagtat 180
ctacaggaaa atgaatcatt aatttcccaa tttcagaggt gatcactgtg catttttata 240
aatattttaca cagatatttt tcttacataa ttgaaatcca ttgtaaagtt tttattttaa 300
atattgtaag catttttctt gtcatgaatt attccaacgt aatttttaag gctacatgag 360
aataccttct ttaacaaatc ttgtattgtt aaatatgtag atttttggaa agtggtttttg 420
attatcaaga aaagctgaca tatttttctt aagtcccatg gaagacttga gtttgaaaga 480
aaatagcaaa ttgtgggttc ttaacaaaag aaatgtgttc ttagtaaat tagctttcag 540
ttaatatattc agtcagtata attcacgaac tgaaatctgt ctgaaacagt ttacacatat 600
tttcaaactc ttaagacata tttttcacia gtgctttgcc atgagttgta ataattacat 660
aataaataac actatctcag aaaaggaaat atgtcatcat cttaagctac attattaaga 720
gattataata taaaactcga g 741

```

<210> 924

<211> 617

<212> DNA

<213> Homo sapiens

<400> 924

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gaattcggcc aaagaggcct acagaatcct aactatttct gaggaaactg tccaaaatgt 60
ggctgctttt aacaatggca agtttgatat ctgtactggg gactacacat ggtttgtttg 120
gaaaattaca tcctggaagc cctgaagtga ctatgaacat tagtcagatg attacttatt 180
ggggataccc aaatgaagaa tatgaagttg tgactgaaga tggttatatt cttgaagtca 240
atagaattcc ttatgggaag aaaaattcag ggaatacagg ccagagacct gttgtgtttt 300
tgcagcatgg ttgtcttgca tcagccacaa actggatttc caacctgccg aacaacagcc 360
ttgccttcat tctggcagat gctggttatg atgtgtggct gggcaacagc agaggaaaca 420
cctggggccag aagaaaacttg tactattcac cagattcagt tgaattctgg gctttcagct 480
ttgatgaaat ggctaaatat gaccttcag ccacaatcga cttcattgta aagaaaactg 540
gacagaagca gctacactat gttggccatt cccagggcac caccattggt tttattgcct 600
tttccaccaa tctcgag                                     617

```

<210> 925

<211> 238

<212> DNA

<213> Homo sapiens

<400> 925

```

gaattcggcc aaagaggcct aattccataa aaatactaaa ttaaaatatt tcaagaagga 60
aagaagggtta atctctgaga aactaataag agataaaata gcagtcaatg agtagagatg 120
cccgcatgga gatctttgct cacaaaacag tcctgctaag tgaaatagtc atagtaatta 180
caataataag tatgatggta gctaaacatt taatgagtac ctattatagg ccaaactc 238

```

<210> 926

<211> 737

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (61)

<220>

<221> unsure

<222> (117)

<220>

<221> unsure

<222> (124)

<220>

<221> unsure

<222> (151)

<220>

<221> unsure

<222> (178)

<220>

<221> unsure

<222> (201)

<220>

<221> unsure

<222> (211)

<220>

<221> unsure

<222> (352)

<400> 926
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 nagggatgta ggggtgaggg tggaaaccat ccacaggaga gatgtggaca gacacanagg 120
 gatntagggg tgaggggtgga aaccatccac naggagagat gtgtggacag acacagangg 180
 atgtaggggt gaggggtgga nccatccaca ngagaggtgt gtggacagac acagagggat 240
 gttaggggtga ggggtgaaac catccacagg agaggtgtgt ggacagacac agagggatgt 300
 aggggtgagg gtggaaacca tccacaggag aggtgtgtgt acagacacag anggatgtag 360
 ggggtgaggg ggaaccatc cacaggagag atgtgtggac agacacagag ggatgacgag 420
 gtgaacagat ggaaaattca gatcaaaagc tgcaaaaggag aatacttgat ttgtctttct 480
 gtgaacttt tataaactta gtgtccagat aatgtaacct atgaaattt aagtatatac 540
 tgctctccaa aatggagtgt ctttgttaaa ttaagaaata ctatactgtt tttaaaatga 600
 gatatgtaat ggatggtttt atgcttataa aatttgacct gctacaggcg ttttgttttg 660
 gtttggtttg gtttggtttg gtttgttttt tccctgaggg gataaagggg gtcaggatca 720
 acagtactgg cctcgag 737

<210> 927
 <211> 829
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (443)

<400> 927
 gaattcggcc aaagaggcct aatcagttat cctctccac tccgtgcctg ggaagtacca 60
 acgggtactg aaacgtaatg agtaatgtct agagattttc tccacaggat agaaacaaag 120
 ctcaaagagg cagcaagtgt aagaaagtgt gacactgttt tatatttagg attttttcct 180
 cttttttaaataa ataatatatac gtgtagagag acaggggtct cctttgttgc ccaggctgat 240
 ctcgaaactcc tgagctcaag ctgtcctccc acctcagcct cccaagggtc gggatcactg 300
 gcatgagcct ctgcaccag cccttaggat tttttttct ttttttaaatt ttaattatt 360
 ttatatatat ttttaagtct caggggtacat gtgcaggatg tgcagggttg ttacataggt 420
 aaacgtgtgc catgggtggt tgnctgacct gtcacctgt cactaggcat gaggaccagc 480
 atgcattagc tcttttccct aatgttctcc atgccccctg gccagccct ctccaacag 540
 gccccagtga gtgtgttcc cctcccggga tttttttct taaggaaaca caccacatca 600
 ggcgttgaaag tgagtgtatt gactgtctga ggtttgtgtg cactttttaa ccagaagtca 660
 tggctgggga caaaaagca cctccttgcc tatgtagttt tgttccttta ctgctttaa 720
 caagcaagat gtggtttgca ttcccttcgc tgcctgtgtt gttggctttg tgtttctcaa 780
 cagaaataac ttgccttgcc tttgtctca aggttgtgaa agccccca 829

<210> 928
 <211> 542
 <212> DNA
 <213> Homo sapiens

<400> 928
 gaattcggcc aaagaggcct aagttttagt tccttgtatt attgagattc agagcttcat 60
 tttatgttgg tcattaggtg aatattactc attttccctc aagagaagct cataagtgtg 120
 tgtgggtgtg agagcacgat ggtgcctgtg ttctgtgaat gtgtccatgt gtgtctgtaa 180
 gagagacaga gaccaagaac ttgcccatt tttagaaatac actaatgtgc agttgttgcc 240
 ttttgtctgt attgaaggcc cattgaatga ctaatccagg ctggaagcat tcccatgtgg 300
 gtgtctgagt ccatgagcca agcctgaggg gacagtgaat ctccaggtct gccacactgg 360
 tgacacctgc tggcacgtg cctcaggaag gtggcgactc aggtgggctc tgagttatat 420
 ttttaactcag ctgctcagtt cccagggcac atttctggat cagaacccat gggaaacagg 480
 aggtactaag tgcaatgtct tagcattctg caaaatggag atctgtgtgc cagcagctcg 540
 ag 542

<210> 929
 <211> 693
 <212> DNA

<213> Homo sapiens

<400> 929

```
gaattcggcc aaagaggcct aaaagaattg ggtataaaa tagatacaac acttctagat 60
tcctataatt acagtgggac agaaaattta aaagataaaa agatctttaa tcagtttagaa 120
tcaattgttg attttaacat gtcattctgt ttgactcgac aaagtccaa aatgtttcat 180
gccaaagaca agctacaaca caagagccag ccatgtggat tactaaaaga tgttggtta 240
gtaaaagagg aagtagatgt ggcagtcata actgccgcag aatgtttaaa agaagagggc 300
aagacaagtg ctttgacctg cagccttcgc aaaaatgaag atttatgctt aaatgattca 360
aattcaagag atgaaaattt caaattacct gacttttctt ttcaggaaga taagactggt 420
ataaaacaat ctgcacaaga agactcaaaa agtttagacc ttaaggataa tgatgtaatc 480
caagattcct cttcagcttt acatgtttcc agtaaagatg tgccgtcttc attgtcctgt 540
cttcctgctg ctgggtctat gtgtggatca ttaattgaaa gtaaagcacg ggggtgattt 600
ttacctcagc atgaacataa agataatata caagatgcag tgactataca tgaagaaata 660
cagaacagtg ttgttctaga tggggaactc gag 693
```

<210> 930

<211> 549

<212> DNA

<213> Homo sapiens

<400> 930

```
gaatcggcca aagaggccta ataaagtttt tcaactacta tggcaatttt cacaaaacca 60
aagcttttat ttatcttctt cttgatcctc tctttggtcc ttgtatctca atgctatgat 120
caaaacccta ggggttacca agaccctcag gagaaactaa gagagtgcc acaacgttgt 180
gagagacaac aaccaggaca acagaaacag ttgtgcaaac aacgttgtga acaacagtat 240
aggaaagagc aacaacaaca acatggaggc gagactggtg aagatgatct aggcaatcgt 300
gggcctgata agagctacaa aagattgcaa gaatgccaac gtaggtgcca gagtgaacaa 360
caggggccaac gactacaaga gtgtcaacaa cgttgtcaac aagagtacca aagagagaaa 420
ggacaacacc aaggtgaaac taaccacacg tgggaacaac aagaaaaatc aaacaatcca 480
tacttattcg agtctcagcg attcaggctt cgattcagag ctagtcatgg tgattttccga 540
atcctcagag 549
```

<210> 931

<211> 487

<212> DNA

<213> Homo sapiens

<400> 931

```
gaattcggcc aaagaggcct actaagataa ctttgggtatt taattctgtc ttacaggatg 60
ttgttcactt atcaaatagt gttacctaaa gatataatga gtgtgctatt ttatcagatt 120
attgatgaaa gtataaaatt aacatcatca gctataccct gcagatcttc ataacatgat 180
ttgattaccc catctgtcac cattaggcaa gaccctaata tatctcataa aaatcagcag 240
cactttaagg ggaaactctg ctgccatgaa ggaaaatata ttaatatatt ctggcttgaa 300
aaattagtggt ttttctgttg tttgtttttt aataaatttg gctttctatg tgattttatg 360
tgtagggttg ctctatgctg taggaggtta tgatggagca tcacgtcagt gtcttagcac 420
agtagaatgc tataatgcta caacaaatga gtggacctat atagcagaaa tgagcaccag 480
gctcagag 487
```

<210> 932

<211> 169

<212> DNA

<213> Homo sapiens

<400> 932

```
gaattcgcgg ccgcgtcgac cctgcctcga gtgggaaatc atgcaactac tcagaatgtg 60
tcctectcat ctaatgctca tctgtttaat ggtgatgcct cgcgtagcag atctgggttac 120
ctgtgcagtt gtgaataccc agaggttggg cagatcagtg tctctcgag 169
```

<210> 933

<211> 877
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (68)

<220>
 <221> unsure
 <222> (255)

<220>
 <221> unsure
 <222> (309)

<220>
 <221> unsure
 <222> (320)

<400> 933
 gaattcggcc aaagaggcct acacagataa aattcgagag catggggagc cttttatcca 60
 ggcgtgtntg acttttttaa agagacgggtg tccttctatt ttgggaggac ttgcccaga 120
 aaaagaccag cccaaaagtg ctcaacttcc tccagaaact ttggcgacaa tgttggcctg 180
 tctgcaagct tgtgcaggga gtgtttctca ggagctatca gaaactatcc tcaccatggt 240
 agccaattgc agtantgtta tgaataaggc cagacaacca ccacctggag ttatgccaaa 300
 aggacgtcnt cctagtgtcn gcagcttaga tgccatttct cctgttcaga ttgacctct 360
 tgctggaatg acatctctta gtatagggtg ttcagctgcc cctcacacc agagtatgca 420
 ggggttttct ccaaatttgg gttctgcatt cagtaccct cagtcaccag caaaagcatt 480
 tccacccctt tcaaccccca atcagaccac tgcattcagt ggtattggag gactttcatc 540
 acagcttcca gtaggtgggtc ttggcacagg cagcctgact ggtataggaa ctggtgctct 600
 tggactccct gcagtgaata acgaccttt tgtacagagg aaactgggca cctctggact 660
 gaatcagcct acattccagc agagtaagat gaaaccttcg gacttgctc aggtgtggcc 720
 agaggcaaac cagcacttta gtaaagagat agatgatgaa gcaaacagct atttcagcg 780
 aatatataat catccaccac atccaacat gtctgttgat gaggtattag aaatgctgca 840
 gagatttaaa gactctacta taatgaggga actcgag 877

<210> 934
 <211> 194
 <212> DNA
 <213> Homo sapiens

<400> 934
 gaattcgcgg ccgcgtcgac gggcagggga ggtgataagg ccttagaact gggaatctag 60
 attcgggatc tgatcacttg actgagcaaa cttgtctctt ctttttattt aaaacacaaa 120
 acaaaacttc ctgaactaaa gtcacagtag agaatagaat gggatggaca gaaagactca 180
 agagggcgct cgag 194

<210> 935
 <211> 161
 <212> DNA
 <213> Homo sapiens

<400> 935
 gaattcggcc aaagaggcct agggcagaga aaagcagtcg ttagagaaaa atttatagga 60
 ctgactgcat atattaggaa agaagatcta aaatcaatca tctaagcttc catttttagaa 120
 aactagaaga gcaaatgaaa cccaaagtaa gtgttctcga g 161

<210> 936
 <211> 108

<212> DNA

<213> Homo sapiens

<400> 936

```

atgCGcagcg ggctgaatac atccacttct gcacgtggtg gaaaaaaggg acagtgtcca 60
ctggggccta gtggccagtg gaaccacacc caacactgca ggctcgag 108

```

<210> 937

<211> 214

<212> DNA

<213> Homo sapiens

<400> 937

```

gaattcgcg cgcgctcgac ctcaagcaca gctttcttca caaaagatgg agtctttctc 60
tgctgtgcca cccaccaaaag agaaagtgtc cacacaggag cagcccatgg caaacctatg 120
taccatctct tcaactgcaa acagttgcag tagctctgcc agcaacaccc cgggagctcc 180
agaaactcac ccatccagta gtccaccct cgag 214

```

<210> 938

<211> 512

<212> DNA

<213> Homo sapiens

<400> 938

```

gaattcggcc aaagaggcct agttgtccag attggtcttg aactcctggg ctcaagccgt 60
ccacctgcct cagcctccca aagcgttgag attacacaca ggagccacca ctcccagctg 120
ctaatttggt tttatacttt cttttgtgtt tattaaactc atttttatgtt aatatgtagg 180
atagagttag tagttatcaa ataagtggca gcttttaccg catcgagatt gttaacttaa 240
cctagtgtgaa cactagaggg acttcaaaact aatcactgaa gtttgagtgc agtagtatat 300
tcagtagtat atactttgtt taaaagtgca gaaccacaca gtttttttcc cccaactctg 360
tggttttcat aagactaagt attatgccta aaattttacc tggttaactta tttgggttaat 420
taattctcag gttaatagac catatataaa atgtaacctc tgccaatata tgtatatcaa 480
agcaaaaaaac ttttgttcat ggccccctcg ag 512

```

<210> 939

<211> 160

<212> DNA

<213> Homo sapiens

<400> 939

```

gaattcggcc aaagaggcct agcagaacta ctatttgaaa agatcacaga ctttgggggtt 60
gaattccagc tctgcttctt acttggttga ggactttgga ccctctaagc ctcattttcc 120
tcatataaaa atgagaatag gccgagcccg gttgctcgag 160

```

<210> 940

<211> 121

<212> DNA

<213> Homo sapiens

<400> 940

```

gaattcgcg cgcgctcgac cgagcagggg gcctttatat caaaattttc tgaaaccatt 60
cctgcaggac tttatgtgga tccgtatgag ttggcttcat tacgagagag cgttcctcga 120
g 121

```

<210> 941

<211> 208

<212> DNA

<213> Homo sapiens

<400> 941

```

gaattcggcc aaagaggcct agagaagctg atcagtaagt ttgacaagct tccagtaaag 60
atcgtacaga agaatgatcc atttgtggtg gactgctcag ataagcttgg gcgtgtgcag 120
gagtttgaca gtggcctgct gcaactggcg attggtgggg gggacaccac tgagcatatc 180
cagaccact tcgagagcaa gactcgag 208

```

```

<210> 942
<211> 291
<212> DNA
<213> Homo sapiens

```

```

<400> 942
cctaaaccgt caagcgattc tgcctcagcc tcccagtag ctgggattac aggcattgtgc 60
taccattcct ggctaatttt tgtactttta gtagagacag ggttttgcc tgttggccag 120
gctggtctcg aacttccgac ctcaagtgat ccaccactt tggcctccca aagtgtctgg 180
atgacgggtg agccactgca cctggccaag agggctgata gtaaattatt gcaagtga 240
aaactaacga tgcaaatgaa aggggtagct atagaagcca agcccctcga g 291

```

```

<210> 943
<211> 200
<212> DNA
<213> Homo sapiens

```

```

<400> 943
gaattcgcgg ccgcgtcgac ataaaatcca aatacaattt tttttttttg tagaaaaaag 60
agaaaaaagc agggtaagaa gagaaagtgg tggagctgag ctgggcagag tggctctttt 120
agaagcgatg acatttacac ataggtcact atggagaggg ccatgcagac acctggagga 180
gtgccaccaa caggctcgag 200

```

```

<210> 944
<211> 895
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> unsure
<222> (642)

```

```

<400> 944
gaattcggcc aaagaggcct aagaaaacca actggaaaaa aaaatgaaat tccttatctt 60
cgcatcttcc ggtggtgttc accttttacc cctgtgctct gggaaagcta tatgcaagaa 120
tggcatctct aagaggactt ttgaagaaat aaaagaagaa atagccagct gtggagatgt 180
tgctaaagca atcatcaacc tagctgttta tggtaaagcc cagaacagat cctatgagcg 240
attggcactt ctgggtgata ctgttggacc cagactgagt ggctccaaga acctagaaaa 300
agccatccaa attatgtacc aaaacctgca gcaagatggg ctggagaaaag ttcacctgga 360
gccagtgaga atacccactt gggagagggg agaagaatca gctgtgatgc tggagccaag 420
aattcataag atagccatcc tgggtcttgg cagcagcatt gggactcctc cagaaggcat 480
tacagcagaa gttctggtgg tgacctcttt cgatgaactg cagagaaggg cctcagaagc 540
aagaaggaag attgttgttt ataaccaacc ttacatcaac tactcaagga cgggtgcaata 600
ccgaacgcag ggggcggtgg aagctgccaa ggtgggggct tnggcattct tcattcgatc 660
cgtggcctcc ttctccatct acagtcctca cacaggtatt caggaatacc aggatggcgt 720
gccccagatt ccaacagcct gtattacggt ggaagatgca gaaatgatgt caagaatggc 780
ttctcatggg atcaaaattg tcattcagct aaagatgggg gcaaagacct acccagatac 840
tgattccttc aacactgtag cagagatcac tgggagcaaa tatccagaac tcgag 895

```

```

<210> 945
<211> 296
<212> DNA
<213> Homo sapiens

```

```

<400> 945

```

```

gaattcgcgg ccgcgtcgac tgaattctag acctgcctcg agccatgcag ctgtgctggg 60
tgatcctggg ctctctcctg ttccgaggcc acaactccca gccacaatg acccagacct 120
ctagctctca gggaggcctt ggcggtctaa gtctgaccac agagccagtt tcttccaacc 180
caggatacat cccttctctca gaggctaaca ggccaagcca tctgtccagc actggtaccc 240
caggcgcagg tgcccccagc agtgggaagag acggaggcac aagcagagat ctcgag 296

```

<210> 946

<211> 481

<212> DNA

<213> Homo sapiens

<400> 946

```

gaattcggcc aaagaggcct agtcttttagg gagttccctt gatctcttga aagagacaca 60
gccccattta cattatttcg tggatttcac cagcatagta tagttttttt ctgtaagtcc 120
ctcattctta tgtaataaca ggtggaactg aggtttgaag aacctcagtg gccatcctg 180
atgacattgg agactcaaag agacaagaga gagtaggggt taaaacctga gctttaagac 240
tcccactagc ttcgtgtcct ttggcatgtt aacgtgcctc agtttctctc tctgtataat 300
ggggatatac gaaaggcacc agtcctaagg tgaacattaa gtgagatgat tctagtatac 360
gacttagaac aatttccagc acatagttaa atatccagga aattctggta ctgttatgtg 420
tggttgagct gacctggatg tagatgtttt cctctctctt gctgacctct ccgccctcga 480
g 481

```

<210> 947

<211> 292

<212> DNA

<213> Homo sapiens

<400> 947

```

gaattcggcc ttcattggcct aggagaggaa cataactgaa acgtttatag taaggattta 60
agagccaaga gggtcagaca cacacacaca cccatacaca cagcacaga atgagaaatg 120
gagaggcata ttttgacatt cttccattca tctctctgcc tattcattca ttcaaaaatg 180
cttattgata gccctactga tgagacgcac tgttctagcc actggggctc cagcagtgaa 240
caggatgagc aaggctcctg tttctctaaa gcttacgctc attccactcg ag 292

```

<210> 948

<211> 690

<212> DNA

<213> Homo sapiens

<400> 948

```

gaaagaaaaat acctaaaggg atcaataatg gtgtcttctg gttgcagaat gcgaagtctg 60
tggtttatca ttgtaatcag cttctttacca aatacagaag gtttcagcag agcagcttta 120
ccatttgggc tggtgaggcg agaattatcc tgtgaagggt attctataga tctgcgatgc 180
ccgggcagtg atgtcatcat gattgagagc gctaactatg gtcggacgga tgacaagatt 240
tgtgatgctg acccatttca gatggagaat acagactgct acctccccga tgccttcaaa 300
attatgactc aaagggtgcaa caatcgaaca cagtgtatag tagttactgg gtcagatgtg 360
tttctctgac catgtcctgg aacatacaaa taccttgaag tccaatatga atgtgtccct 420
tacatttttg tgtgtcctgg gaccttgaaa gcaattgtgg actcaccatg tatatatgaa 480
gctgaacaaa aggcgggtgc ttggtgcaag gacctcttc aggctgcaga taaaatttat 540
ttcatgcccc ggactcccta tcgtaccgat actttaatag aatatgcttc tttagaagat 600
ttccaaaata gtcgccaaac aacaacatat aaacttccaa atcgagtaga tggtagtgga 660
tttgtggtgt atgatgatgc tatactcgag 690

```

<210> 949

<211> 337

<212> DNA

<213> Homo sapiens

<400> 949

```

gaattcggcc aaagaggcct aagtaccctt gacgacactg aaaggcttgt tgagatggaa 60

```

```

caagtcctct cttcacttaa caagatgaga aagacaatag gtggtgtggc tctctggcga 120
cagcaaatct gcgcaattgc aagggttcgc ttgttaaagt taaagcatga aagaaaagct 180
cttttagcac tgctattaat tctaattggct ggattttgcc ctcttcttgt ggagtatacc 240
atggtgaaaa tatatcaaaa cagttacacc tgggaacttt ctcttcattt gtatttcctt 300
gctcctggac aacaaccaca tgaccctccc actcgag 337

```

```

<210> 950
<211> 334
<212> DNA
<213> Homo sapiens

```

```

<400> 950
gaattcggcc ttcattggcct acggaatgaa gactacaagg agatcaccca gaaactctgc 60
ttcccaatgg ggagaaatgt tttttctcat gattatgtat tttggtgtgg cgatttcaac 120
taccgcattg atcttactta tgaagaagtc ttctattttg ttaaacgcca agactggaag 180
aaacttctgg aatttgatca actacagcta cagaaatcaa gtggaaaaat ttttaaggac 240
tttcacgaag gagcatttaa ctttggaccc acctacaagt atgacgttgg ctcagccgcc 300
tacgatacaa gcgacaaatg ccgcaccctc cgag 334

```

```

<210> 951
<211> 140
<212> DNA
<213> Homo sapiens

```

```

<400> 951
gaattcggcc aaagaggcct acagccttga tattcagggt ggattgtaaa atataaattt 60
ttgtgagatt tcaaagatta agattatttt gataacatta tttacagatt taaaagatgt 120
ggttatcacg cgctctcgag 140

```

```

<210> 952
<211> 180
<212> DNA
<213> Homo sapiens

```

```

<400> 952
gaattcgcgg ccgcgtcgac aaagtaaatt cagatgaatt tgctgtggca cttgacgaaa 60
ctcttgagga ctttgcgttc ccagacgaat ttgtctttga tgtttgggga gtcattggtg 120
atgccaaacg aagaggatta tgatgtgtac actccatctc tgaagaaaca acccctcgag 180

```

```

<210> 953
<211> 528
<212> DNA
<213> Homo sapiens

```

```

<400> 953
gaattcggcc aaagaggcct agaaagagag ataactggat ttaagaacct cttaaaaatg 60
acaagaaaaga agttaaatga atatgaaaat ggagaattta gtttccatgg agatttaaaa 120
actagtcaat ttgaaatgga tattcagatt aataagctaa aacataaggt tgaagaagaa 180
aggaaaaaac acagaaataa tgaaatggaa gtatcagcaa acatacatga tgggtgctact 240
gatgatgctg aagatgatga tgatgatgat ggattaattc aaaaaagaaa gaggaggagaa 300
actgatcatc agcaatttcc caggaaggaa aataaagagt atgctagtag tggtcctgcc 360
ttgcaaatga aggaagttaa gagcactgaa aaagaaaaac ggacctcgaa agaactctgtg 420
aattcaccag tgtttgggaa ggccagttta ctaactggtg gcctgctaca agtggatgat 480
gacagcagtt taagtgaat agatgaggat gaaggaaggc tcctcgag 528

```

```

<210> 954
<211> 132
<212> DNA
<213> Homo sapiens

```

<400> 954
 gaattcggcc aaagaggcct attagaatat aattaacatt ttgttgtaaa cattttaatc 60
 tgaacaaaac cctttttatt tggagactct ctgtgagaaa caatgctcca cgtttcctgg 120
 ctgtgtctcg ag 132

<210> 955
 <211> 756
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (135)

<220>
 <221> unsure
 <222> (188)

<400> 955
 gaattcggcc aaagaggcct aactttacag ggacaaatca tagaacagtc aggtacaatg 60
 actggtggtg gaagcaaagt aatgaaagga agaattgggtt cctcacttgt tattgaaatc 120
 tctgaagaag aggtnaacaa aatggaatca cagttgcaaa acgactctaa aaaagcaatg 180
 caaatccnag aacagaaagt acaacttgaa gaaagagtag ttaagttacg gcatagttaa 240
 cgagaaatga ggaacacact agaaaaattt actgcaagca tccagcgttt aatagagcaa 300
 gaattattga atgtccaagt taagggaactt gaagctaattg tacttgctac agcccctgac 360
 aaaaaaaagc agaaattgct agaagaaaac gttagtgtct tcaaaacaga atatgatgct 420
 gtggtctgaga aagctggtaa agtagaagct gaggttaaac gcttacacaa taccatcgta 480
 gaaatcaata atcataaact caaggcccaa caagacaaac ttgataaaat aaataagcaa 540
 ttatagtaat gtgcttctgc tattactaaa gcccagtag caatcaagac tgctgacaga 600
 aaccttcaaa aggcacaaga ctctgtcttg cgtacagaga aagaaataaa agatactgag 660
 aaagaggttg atgacctaac agcagagctg aaaagtcttg aggacaaagc agcagaggtc 720
 gtaaagaata caaatgcccg cgaggttctc cctata 756

<210> 956
 <211> 656
 <212> DNA
 <213> Homo sapiens

<400> 956
 gaattcggcc aaagaggcct aaaatgttaa aaaatcaagc aacttctgct acttctgaaa 60
 aggataatga tgatgaccaa agtgacaagg gtacttatac cattgagtta gagaatccca 120
 acagttagga agtggaagca agaaaaatga ttgacaaggt gtttggagta gatgacaatc 180
 aggattataa taggcctgtt atcaacgaaa aacataaaga tctaataaaa gattgggctc 240
 tcagtctctg tgcagcagta atggaagaaa gaaaaccact gactacatct ggatttcacc 300
 actcagagga aggcacatct tcatctggaa gcaaactgtg ggtttcacag tgggctagtt 360
 tggctgcaa tcatacaagg catgatcaag aagaaaggat aatggaattt tctgcacctc 420
 ttcctttaga gaatgagaca gagatcagtg agtctggcat gacagtgaga agtactggct 480
 ctgcaacttc cttggctagc cagggagaga gaaggagacg aactcttccc cagcttccaa 540
 atgaagaaaa gtctcttgag agccacagag caaaggttgt aacacagagg tcagagatag 600
 gagaaaaaca agacacagaa cttcaggaga aagaaacacc tacacagata ctcgag 656

<210> 957
 <211> 716
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (54)

<400> 957
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 aaaaaagaga agaccccaaa ccaggcccta aaaaaccaa agagaaagt gatgctctat 120
 cacagtttga tctcaacaat tatgcaagt ttgttataat tgatgatcat cctgaagtaa 180
 cagtaattga agatccccag tcaaatTTga atgatgatgg ttttactgaa gtggtatcca 240
 aaaaacaaca aaaacgttta caggatgaag aacgccgaaa gaaggaagaa caagtcatac 300
 aggtctggaa caaaaagaat gcaaatgaaa aaggaagaag ccagacttct aagcttcttc 360
 caagatttgc caaaaacag gctacaggga tccagcaagc acagtcttca gcctcagttc 420
 cacccttagc ttgggtccca ctccacett caacctcagc ttcagttcca gcctcaacct 480
 cagctccact tccagcaacc ttaactccag ttccagcctc aacctcagct ccggttccag 540
 cctcaacttt agctccagtt ctggcctcaa cctcagctcc agttccagcc tcacccttag 600
 ctccagtttc agcctcagcc tcagtctcag cttcagttcc agcctctact tcagctgcag 660
 ctataacctc ttcttcagct ccagcctcag cccagctcc aacccccaca ctcgag 716

<210> 958
 <211> 432
 <212> DNA
 <213> Homo sapiens

<400> 958
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 gccagtgtta ttgtgaaaga atctctgaca gaagaagatg tgtaaaactg tcaaaaaaca 120
 atatacaact tagttgatat ggaaagaaaa aatgatcctc tacctatttc cacagtgggt 180
 acaagaggaa agggccctaa aagagatgaa caataccgta tcatgtggaa tgaattagaa 240
 acccttgtca gagcccatat caacaactca gagaaacatc aaagagtctt ggaatgtctg 300
 atggcatgca ggagcaaac cccagaagag gaagaacgaa agaaacgagg aagaaagagg 360
 gaagacaaag aggacaagtc agagaaagca gtgaaagatt atgaacagga aaagtcttgg 420
 caagatctcg ag 432

<210> 959
 <211> 481
 <212> DNA
 <213> Homo sapiens

<400> 959
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 gtcagcattc acgcctacca ggacacaaaa atcctcttca aaactactca gaaaagaaag 120
 tcattactca ggaatgatgt ccattcagga gaaatcaaaa gagaattcct ccaaagttac 180
 taaaaaaagt gacgataaga attcagaaac agaaattcag gattctcaaa agaacttagc 240
 aaaaaaatca ggtccaaagg agactataaa atcacaggct aaatcttcca gtgaaagtaa 300
 aataaatcag ccagaattgg aaacacgcat gagtacaagg tcatcaaagg cagcatctaa 360
 tgataaagct actaaatcca ttaataaaaa tacggtgact gtgaggggat attcacaaga 420
 atctacaaaa aagaaattat ctcagaaaaa attagtacat gaaaacccta aagcactcga 480
 g 481

<210> 960
 <211> 123
 <212> DNA
 <213> Homo sapiens

<400> 960
 gaattcggcc aaagaggcct actgtgggtt ttgtaaggt gtctgtggag attctctggc 60
 taccctagaa aaaaagaaat attcatgcta ccattagttt tcctttgtaa ggttaatttc 120
 gag 123

<210> 961
 <211> 324
 <212> DNA
 <213> Homo sapiens

<400> 961
gaattcggcc aaagaggcct acgagctcttg tgtggatcaa acattatgct atttgggtgtg 60
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agaaaatttct cagtaaaggc ttcttcttct tcagaagttg aagacacaac tctcgcaggc 180
cgaataccgc tcacagtcga tgccgggggt gcttcttttg gatgggctac atctggagtc 240
gtgggttttat caaattcagc ctccgatgac gttggcgaca gagggcttac agggctgagg 300
gatggggaac tctcaaccct cgag 324

<210> 962
<211> 517
<212> DNA
<213> Homo sapiens

<400> 962
gtggaaagaa aagtttgaac aagctgaaaa aagaaaactt caagaacaaa aagagttaca 60
gaaagcagga attatgtttc aaatggacaa tcatttacca aaccttggtt atctgaatga 120
agatccacaa ctatctgaga tgctgtctata tatgataaaa gaaggaacaa ctacagttgg 180
aaagtataaa ccaaattcaa gccatgatat tcagttatct ggggtgctga ttgctgatga 240
tcattgtact atcaaaaatt ttgggtgggac agtgagtatt atcccagttg gggaagcaaa 300
gacatatgta aatggaaaac atattttgga aatcacagta ttacgtcatg gtgatcgagt 360
gattcttggg ggagatcatt attttagatt taatcatcca gtagaagtcc agaaaggaaa 420
aaggccatct ggaagagata ctctataag tgagggtcca aaagactttg aatttgcaaa 480
aaatgagttg ctcatggcac agagatcaca actcgag 517

<210> 963
<211> 163
<212> DNA
<213> Homo sapiens

<400> 963
gaattcggcc aaagaggcct acagtttggg agcttatacct tttttatata agttatattt 60
ttcaaatatt agtatttgaa tgagtccaga tatatacttt gccatcctg tctgcttcat 120
atttttttta gcagacctca tttttagaag tgaaaacctc gag 163

<210> 964
<211> 181
<212> DNA
<213> Homo sapiens

<400> 964
gaattcggcc aaagaggcct actttccaaa tccggttgct tattttctgc cctccacttg 60
cttgaagtct cagccgcctt caactcaatt aacaattctc ccataagtc acttttcttt 120
ggctttccag atgcatagaa gtctctctctg ccagatcctt ctctctctgt ctgacctga 180
g 181

<210> 965
<211> 138
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (56)

<220>
<221> unsure
<222> (104)

<400> 965
gaattcggcc aaagaggcct agtggagatg gataatagaa aaattctctg tatctngatt 60

gcagtgggtga ttgcacagggc acacactctc acacgctctc tcangatagg aggtcctctc 120
ccaccctcag ctctcgag 138

<210> 966
<211> 134
<212> DNA
<213> Homo sapiens

<400> 966
gaattcggcc aaagaggcct aagagattag gtgattagtg acaatcagtt gtaacttagc 60
actgttaggc tgcaaacccc ttgctccttc ctttccacca aactatgttg attttcctcc 120
cttacctcct cgag 134

<210> 967
<211> 205
<212> DNA
<213> Homo sapiens

<400> 967
gaattcggcc aaagaggcct aggttggtgg aagtttggtg tgtttctact ctttgggtcat 60
tatgaacact tgtgtacaat tgtttatgtg gacatatgtt ttcatttctc tcagaaataa 120
tggaattgct gccctgtttt tcagtcttca aaaaatggag aaagtgaatt gccacctaaa 180
ctttgggtatc accggtcccc tcgag 205

<210> 968
<211> 190
<212> DNA
<213> Homo sapiens

<400> 968
gaattcggcc aaagaggcct aagataaatt aacagaaatc ttgtctattg tctcttattt 60
atatattcat tcattcattt cagtgggctg atggataggg gtataatcca atactatgtt 120
atttattttg ttgtccaaat cattccagct atggccactg gaagctcttt cagttgctcc 180
ccatctcgag 190

<210> 969
<211> 209
<212> DNA
<213> Homo sapiens

<400> 969
gaattcggcc aaagaggcct agttgctttc tgtttgtttt tctttcaatg gtcaggcccc 60
tcttctgtag ggctgtgtg gtttgcctgg cattcacttc aggcactatt catctggctc 120
gtcctgtgct ctggagccag tcactcaagg aggtgggaaa acagcaaaga tgggtgcttc 180
ctccttcctc tgggaactct gacctcgag 209

<210> 970
<211> 562
<212> DNA
<213> Homo sapiens

<400> 970
gaattcggcc aaagaggcct actcacttct gccccgggca ctgcgtccag cagcagaggg 60
gacagggggc aggtgtgtga ctgggttctt gggtagccag gcctgaccag agggagcggg 120
agggcagagg tgaggagggg gaagatgttt ctgggcctac caagggtcaa caagagaacg 180
gagctgggaa tgtgactgct ggagcctgag aggtggagga gttctgatcc cccgttactt 240
cctagcattt tctcctcttg ccttaaaagt tccctgtatg tgaaacggga agtcctgaga 300
gtgtgtgttg gtggctgtgc gcacgcacac aagacgggag tcaccctgtg cttcctgccc 360
aagatactga cccattgaac ccccaaagca tctttctctc cacaaggtcc gtggtgcctt 420
cctggtgggc tgcagacact aatggtgttg ggggtctctg gaacagcttc tctatgtgtg 480

gattcgtgta aatgcgaaga gttcacatat aaagaagtga ctttgattct gtgattatat 540
tgatttgga cacagtctcg ag 562

<210> 971
<211> 171
<212> DNA
<213> Homo sapiens

<400> 971
gaccgtcgat tgaattctag acctgcctcg aaccccagtt tttttttaat ttccgatacc 60
agtaatccct acagaacctc aatgggcatg cagtgcctca tagtttactc ctgttttctc 120
attctgctac taccactcca cccatcaagt gtttctgcta atgaactcga g 171

<210> 972
<211> 119
<212> DNA
<213> Homo sapiens

<400> 972
gaattcggcc aaagaggcct agttttatcac cactctttga tcagaagtac ttagaactaa 60
aagtcaactt atcaagctta aagccatagg gttacactat gaaatttaac atactcgag 119

<210> 973
<211> 221
<212> DNA
<213> Homo sapiens

<400> 973
gaattcggcc aaagagagca gaattgttga atcctatgat aattttgtgc ttaatttatt 60
attaattttt tttcatccca ctctgttgc cagcctggag tacagtggta caatctcggc 120
ttcttgacgc ctctgtcccc cgggggtcaa gtgactctcg tgcttcagcc tcccagtag 180
ctgggactac agacaccgc caccacgccc ggtctgctga g 221

<210> 974
<211> 188
<212> DNA
<213> Homo sapiens

<400> 974
gaattcggcc aaagaggcct aggtcctcgt ttcttttgtc tcatttcacg tcttccatta 60
tagtggtttt aatatgctta ctccccagtc tcttattggc ccacattcaa accatttact 120
taagtagctt tagtggtctt gagcctgtgt tatctcagcc tgctctgttc acatcagtct 180
ttctcgag 188

<210> 975
<211> 257
<212> DNA
<213> Homo sapiens

<400> 975
gaattcggcc aaagaggcct aaccgtcgat tgaattctag aactgtcctc catcctccga 60
acaagtagag agagcttcac ttccaagaat tccaagtttt cttgttaatg ctgtatggtt 120
acttcgggct aaagagaact ctgcttctta aaatcctctt gatttcttct tctgggagcc 180
tcgatggccc caggaagcca gcgggtccag tccgcagcc ttgccccaca accagccacc 240
acccgccaac actcgag 257

<210> 976
<211> 201
<212> DNA
<213> Homo sapiens

<400> 976
gaattcggcc aaagaggcct aaggagcgtg gaagctcaca aatgtgtaga gactgggtag 60
agagcaagaa tctataaact gactccatcc aacagaaatt acaaagtga agctgcagta 120
ctaagcaaaag tggctcacag agtaggggaa gcaagacacc attcctactt aacgatgaaa 180
ccaactcagc tgggtactcga g 201

<210> 977
<211> 139
<212> DNA
<213> Homo sapiens

<400> 977
gaattcggcc aaagaggcct agtttttaag gtgaataatg ctcataaaat ttttacagct 60
gtgtcttatg aaattctgtt tccttttttt gggtgcttat atgtattcta taaagacact 120
gaaaggatgc aacctcgag 139

<210> 978
<211> 192
<212> DNA
<213> Homo sapiens

<400> 978
gaattcggcc aaagagtaag tacactgtaa ggtagaaga ggtcttgctc tcagagaata 60
attaagacta gaaggcgaca ggacaagctt tggggaaaac cattgatgtt tgtttttttg 120
tttgtttgtt tgtttgtttt gggttttttt gagatgaagt cttgctttgt tgcccggtct 180
gaagtactcg ag 192

<210> 979
<211> 240
<212> DNA
<213> Homo sapiens

<400> 979
gaattcggcc aaagaggcct acgtataacg ttgtaacaat tggtaagata ccaatttaca 60
aatatggaaa tatatattag attcatttgg aggaggttgt atatggtata cgattggcat 120
atgtttttca ttctgaaagt atcagttatt ttctgttat tatctgtggt aacattgctt 180
gttttttttt ttgttggtga gacagagtct cgctctgtct ctgtcgccca ggcgctcgag 240

<210> 980
<211> 564
<212> DNA
<213> Homo sapiens

<400> 980
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atacctgcag aagctataag ggtaaccac ttgagagtgg ataaaagttt catggaacaa 120
gaccttccaa gattttttata agatgtgtag ttgtgaatat ataaagttag ttacaaattc 180
ccaggtcaaa agaaattatg aattataaga ggtatacaga acagaagcag catttggatg 240
ccggataata ttattgtatt ttcttcatg ttctcctgcg tagtttctga tgaagaacaa 300
tcagtagtat acgttccagg aatttctgct gaaggaaatg tcagatcaag acacaagctg 360
atgagtccaa aagctgatgt taaacttaag acttccaggg tgactgatgc ttcaatctcc 420
atggagtcct taaaaggcac aggagattca gtagatgaac agaattcctg caggggagaa 480
ataaagagtg catcattgaa ggatttatgt cttgaagaca aaagacgcat tgcaaactta 540
attaagaac tggccggact cgag 564

<210> 981
<211> 191
<212> DNA
<213> Homo sapiens

<400> 981

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gaattcggcc aaagaggcct acctgtttct ccaaaagacg aatgttttct tttttccgaa 60
tttgccctctc aatgtctctg ataactccgt cacgaagcct ctgctgtgct cactgctgct 120
tcacatgtac gccggccact gtggccgccc tcagcagcac cgagaggccc agcaccacct 180
tcgagctcga g 191
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<210> 982

<211> 170

<212> DNA

<213> Homo sapiens

<400> 982

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gaattcggcc aaagaggcct atgagtatct ttctcatgta ttcttgttac tacattttac 60
ttggagccag gatcttctct tgttgcccag gctggctgga ctgcagtggc ctgaacacag 120
ctcaccacag catcaactat ttgcactcaa gtaatccccc catctctgag 170
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<210> 983

<211> 744

<212> DNA

<213> Homo sapiens

<400> 983

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gaattcggcc aaagaggcct atttagaaat ggaaaaatgt taacaaatgt ggcaattatt 60
ttggatctat cacctgtcat cataactggc ttctgcttgt catccactcc taccacagga 120
cctacaccac ggtccactct tggttccagt gaagcatttg cttctacttc tgcacctttc 180
actagcctcc ccttttccac cagctcttct gctgcttcta ccagcaaccc aaattctgct 240
tcattgtcat cagtttttgc agggctccct ttgcccttac caccaacatc ccaaggccta 300
tccaaccgca ctccgttaat tgctgggtggc tctactccca gcgttgcccg tccacttggt 360
gtgaacagtc ctcttttctc tgcgttaaaa gggttttctga catccaatga caccaattta 420
atcaactcct ctgctttatc ctctgctgtc acaagtgggc tggcttcact atcttctctt 480
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atccctaccc cacagaggac ttccactcca ggggttggccc tgttcccagg cctgcccgtc 600
ccggtggcta actcaacttc cactcccctg acattgcctg tacagtctcc tttagccact 660
gctgcatcag cttccacgtc agtgccagtt agctgtggct cctcagcctc ccttttgcgt 720
ggccccacc caggtacact cgag 744
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<210> 984

<211> 666

<212> DNA

<213> Homo sapiens

<400> 984

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gaattcggcc aaagaggcct atgggaaaaa aatgatcaac tcatgtttac ataaacaagc 60
tgactgcagg aatgaggagg ccctgggggc cctgggcact gcttatgttg ccaacattcc 120
acccccagca agagctctaa gcagagcccg gtgccgacct tttccttcaa ggtcctgacg 180
ttgacatact ccctgctcct tctatagtca gaacaacgtg tccctaggag ctaatatctc 240
aggagggcct tattgtgccc ctaaggcaat tatttttttc tccctttttt tgtcatagtt 300
attagaactt ttccaaaaat aaaaccttga atgtaaacat ttatagaatt aatttacata 360
tgtggaaaaa aaatccagag ctgcttggat gaaagtatgg gtgggtggtg ggccaggcct 420
atgcctgctc tccctacaca cacaccacc cttagagccct acataaactc tgagatgtct 480
ccagagtaca gttggaaaac tcagctccag ggccgtataa ggaatttgca ttctctataa 540
ttttttttta attgagatat aattgaaata gaggtaaaat ttaccctttt taacatccag 600
ttcaacacat aattgtgtat catcataaac aagatgtaca acagtttgat ccgcaccctc 660
ctcgag 666
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<210> 985

<211> 517

<212> DNA

<213> Homo sapiens

<400> 985

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gaattcggcc aaagaggcct aggaagggga catgctgacg ctgttcgacg gggacgggtcc 60
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tgggcccgcac ctcacactgc agtttcaggc accgcccggg cccccaatac caggcctggg 180
ccagggtcttc gtattgcact tcaaagaggt cccgagggaac gacacgtgcc ccgagctgcc 240
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cacctaccag tgcgagcctg gctacgagct gctaggctcc gacattctca cttgccagtg 360
ggacctgtct tggagcgccg cgccgcccgc ctgccaaaag atcatgactt gtgctgacct 420
tggcgagatt gccaacgggc accgcaccgc ctgggacgac ggcttccccg ttggctccca 480
cgtccagtac cgctgcctgc cagggtacag cctcgag 517

```

<210> 986

<211> 627

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (161)

<400> 986

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gaattcggcc aaagaggcct aggagcagat gagagccctc ctgctgggac agagaattgg 60
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tttaattatg caatgcctag ttccataaat gattggaggc naattaccgt aaattttgaa 180
acagcctata tgtcagaaat gataatgttg ccacctaata gttttctgtc cccccacccc 240
tccccagggg aaatggtagg aaaatggtaa gtttcttagg gcaaagactg tgtcttctgt 300
ttcttttcat gcttaggata tggttctgtg catagtaggt actcagtaaa tgttcctaga 360
atcataaaat cctcaacaga tatgttactg agcatctgct ttcatgata agcactctat 420
cagatccctg ggatgcaaag gtaataaga caaatccctt ttgcccacaa agctcaccat 480
caagttgggg gagggaaaag ggaattcaaa acatgttaat aaatcatcat agtactgtga 540
gataagtgca attaagaagc tagttataaa gtatagggga aatagaggag taatcatgtc 600
tgaaaagtca ggaaagtcgt cctcgag 627

```

<210> 987

<211> 379

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (11)

<220>

<221> unsure

<222> (13)

<220>

<221> unsure

<222> (66)

<400> 987

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gaattcggcc nangaggcct agagacagca gagcacacaa gcttctagga caagagccag 60
gaaganacca ccggaaggaa ccactctcact gtgtgtaaac atgacttcca agctggccgt 120
ggctctcttg gcagccttcc tgatttctgc agctctgtgt gaagggtgcag ttttgccaa 180
gagtgtctaa gaacttagat gtcagtgcac aaagacatac tccaaacctt tccaccccaa 240
atttatcaaa gaactgagag tgattgagag tggaccacac tgcgccaaca cagaaattat 300
tgtaaagctt tctgatggaa gagagctctg tctggacccc aaggaaaact ggggtgcagag 360
gggtgtggag ccgctcgag 379

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<210> 988

<211> 339
 <212> DNA
 <213> Homo sapiens

<400> 988
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 ccggaaggaa ccatctcact gtgtgtaaac atgacttcca agctggccgt ggctctcttg 120
 gcagccttcc tgatttctgc agctctgtgt gaaggtgcag ttttgccaag gagggtctaaa 180
 gaacttagat gtcagtgcac aaagacatac tccaaacctt tccaccccaa atttatcaaa 240
 gaactgagag tgattgagag tggaccacac tgcgccaaca cagaaattat tgtaaagctt 300
 tctgatggaa gagagctctg tctggacccc aagctcgag 339

<210> 989
 <211> 396
 <212> DNA
 <213> Homo sapiens

<400> 989
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 ccaggtaatt gtcacataca gtctttcttc tctacttctg cttcattctc tttgtgtcac 180
 tttagtatgt gtacctcctg ggtgctctct gtacattttt tctcctctat acaagtctgt 240
 gccatggctt ctgctgtcat ttcttctgct ttgctcttca ccaggatttc gctgtgcccc 300
 tttccttgct tccctttgct tgtaactacc aggacttctg ctccggcttc tccggctcct 360
 ttcctcctg ccgtggcttc tgetgctccc ctcgag 396

<210> 990
 <211> 316
 <212> DNA
 <213> Homo sapiens

<400> 990
 gaattcggcc aaagaggcct aagccgtatt tgacaagtat aggtggctct atattataga 60
 aatgggaata acattatttt tatctttatt ttttttgaag acagtgtctt gctctgtcgc 120
 ccaggctaga gtgcagtggg gcagctcttg ctcactgcaa cctccgcctc ctgggttcga 180
 gcaattctcc tgccctcagc tcctgagtag ctgggattac aggcacgcat caccacaccc 240
 ggccagtttt tgtattttta gtagaaatgg ggtttcacca tgttggctag gatggtctca 300
 atctcctgac ctcgag 316

<210> 991
 <211> 388
 <212> DNA
 <213> Homo sapiens

<400> 991
 gaattcggcc aaagaggcct aggataatag tcaaattctt acctcgctct ttcactgcta 60
 gtaagatcag attgcgtttc ttccagttac tcttcaatcg ccagtttctt gatctgcttc 120
 taaaagaaga agtagagaag ataaatcctg tcttcaatac ctggaaggaa aaacaaaata 180
 acctcaactc cgttttgaaa aaaacattcc aagaactttc atcagagatt ttacttagat 240
 gatttacaca atgaagaaag tacatgcact ttgggcttct gtatgcctgc tgcttaattc 300
 tgccccctgc cctcttaatg ctgattctga ggaagatgaa gaacacacaa ttatcacaga 360
 tacggagttg ccaccactaa aactcgag 388

<210> 992
 <211> 361
 <212> DNA
 <213> Homo sapiens

<400> 992
 gaattcggcc aaagaggcct agagacagca gagcacacaa gcttctagga caagagccag 60

```

gaagaaacca ccggaaggaa ccatctcact gtgtgtaaac atgacttcca agctggccgt 120
ggctctcttg gcagccttcc tgatttctgc agctctgtgt gaaggtt ag ttttgccaag 180
gagtgctaaa gaacttagat gtcagtgcac aaagacatac tccaaactt tccaccccaa 240
atttatcaaa gaactgagag tgattgagag tggaccacac tgcgccaaba cagaaattat 300
tgtaaagctt tctgatggaa gagagctctg tctggacccc aaggaaaact gggttctcga 360
g 361

```

<210> 993

<211> 378

<212> DNA

<213> Homo sapiens

<400> 993

```

gaattcggcc aaagaggcct agagactaac ccagaaacat ccaattctca aactgaagct 60
cgcactctcg cctccagcat gaaagtctct gccgcccttc tgtgcctgct gctcatagca 120
gccaccttca tcccccaagg gctcgtccag ccagatgcaa tcaatgcccc agtcacctgc 180
tgctataact tcaccaatag gaagatctca gtgcagaggc tcgcgagcta tagaagaatc 240
accagcagca agtgctccaa agaagctgtg atcttcaaga ccattgtggc caaggagatc 300
tgtgctgacc ccaagcagaa gtgggttcag gattccatgg accacctgga caagcaaac 360
caaaactccg tactcgag 378

```

<210> 994

<211> 367

<212> DNA

<213> Homo sapiens

<400> 994

```

gaattcggcc aaagaggcct attgaattct agacctgcct cgagccctcc cgtattaata 60
tttccacttt tggaaactact ggccttttct ttttaaagga attcaagcag gatacgtttt 120
tctgttgggc attgactaga ttgtttgcaa aagtttcgca tcaaaaaaca caacaacaaa 180
aaaccaaaca actctccttg atctataact tgagaattgt tgatttcttt tttttattct 240
gacttttaaa aacaactttt tttttccact tttttaaaaa atgcactact gtgtgctgag 300
cgcttttctg atcctgcacg tggtcacggg cgcgctcagc ctgtctacct gcagcacaca 360
tctcgag 367

```

<210> 995

<211> 133

<212> DNA

<213> Homo sapiens

<400> 995

```

gaattcggcc aaagaggcct aggtgggtgt gtgtggctgtg gttgtagaaa taataatggt 60
ggtgggtggt cggctgctgc tgctgctgct gaggggtgatg gtgcggatgg tgggtggctgt 120
gccggtgctc gag 133

```

<210> 996

<211> 414

<212> DNA

<213> Homo sapiens

<400> 996

```

gaattcggcc aaagaggcct agtctctttt tttccccatc tcattgctcc aagaattttt 60
ttctctcttac tcgccaaagt caggggttccc tctgcccgtc ccgtattaat atttccactt 120
ttggaactac tggccctttc tttttaaagg aattcaagca ggatacgttt ttctgttggg 180
cattgactag attgtttgca aaagtttcgc atcaaaaaca acaacaacaa aaaaccacaa 240
aactctctct gatctatact ttgagaattg ttgatttctt ttttttatcc tgacttttaa 300
aaacaacttt tttttccact tttttaaaaa atgcactact gtgtgctgag cgcttttctg 360
atcctgcacg tggtcacggg cgcgctcagc ctgtctacct gcagcacact cgag 414

```

<210> 997

<211> 394
<212> DNA
<213> Homo sapiens

<400> 997
gaattcggcc aaagaggcct acgagaagtc ctgtaagacg taaatatttt taaaattcac 60
tgaatttttg tctttctcgg taccatagaa caccacagcc aagagatctc gatcactgct 120
tatgatctta ctgatgtaca cactttggat acactggatg ctcatgtcaa aagggtgtcaa 180
ctcatcttca tctccatcct cttcctcacc atcaccttct tcttctcct cctcttcctc 240
cccaccttct tctcttctt cgtctacctc attgtcagcc tctgtctccc cattttcctc 300
attagcattc ccgttagcag gggcgtctct tccattttct gcctcttcca caacttcctt 360
cttctccttt aagtccttgg tggtagtct cgag 394

<210> 998
<211> 394
<212> DNA
<213> Homo sapiens

<400> 998
gaattcggcc aaagaggcct acgagaagtc ctgtaagacg taaatatttt taaaattcac 60
tgaatttttg tctttctcgg taccatagaa caccacagcc aagagatctc gatcactgct 120
tatgatctta ctgatgtaca cactttggat acactggatg ctcatgtcaa aagggtgtcaa 180
ctcatcttca tctccatcct cttcctcacc atcaccttct tcttctcct cctcttcctc 240
cccaccttct tctcttctt cgtctacctc attgtcagcc tctgtctccc cattttcctc 300
attagcattc ccgttagcag gggcgtctct tccattttct gcctcttcca caacttcctt 360
cttctccttt aagtccttgg tggtagtct cgag 394

<210> 999
<211> 118
<212> DNA
<213> Homo sapiens

<400> 999
gaattcgcgg ccgcgtcgac ccatggatct gttcagtcct gcgtttgtgc ttatgctccc 60
agcagtgcag ggggcagccc agggcgccct ctcacggctc ctteccgccc ctctcgag 118

<210> 1000
<211> 110
<212> DNA
<213> Homo sapiens

<400> 1000
gaattcggcc aaagaggcct agttttatct gttagctcct ttaatcccca caaaagccat 60
cagaagtagt tgctattatt aatcctgttt tacagatgag gatcctcgag 110

<210> 1001
<211> 494
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (143)

<220>
<221> unsure
<222> (287)

<400> 1001
gaattcggcc aaagaggcct aaccaggaaa tggagcggct ccgggagctg cagtggcgct 60

```

ccatcctaga catgcgagga gaccacgagg agcagctgca ggggctaaa ctgctgaagg 120
accgagaggt ccatgcgagg acnagtgcga cctccacac ggggtccctg aatagcatca 180
tccaccagat ggagaagttc tccagcagcc tgcacgagtt gtcctcccg gtggaggcct 240
cgcacctcac cacctcccag gagcgggagc tggggatccg gcagcngac gagcagctgc 300
gggcactgca ggagcggctg ggcagcagc agcgggacat ggaggaggag cggagccggc 360
aacaggaggt catcggaag atggaggcac ggctgaatga gcagagccgg ctgctggagc 420
aggaacgctg gcgggtgact gccgagcagt ccaaggcgga gtccatgcag cgcgccctag 480
tggaagcgtct cgag 494

```

<210> 1002

<211> 370

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (8)

<400> 1002

```

gatcaacnag atgaagggtt atactctgct gtcggagggc attgatgaga tgggtgggcat 60
catctacaag cccaaaacta aagagactcg ggagacctat gaggtgtctac tcagcttcat 120
ccaggctgct cttggggacc agccacgtga tatcctttgt ggggcagctg atgaagtctt 180
agctgttcta aagaatgaaa agctgcggga caaggaaagg cgaaaggaga ttgacctgct 240
gctgggtcaa acagatgata ccagatacca tgtgctagtg aacctgggca aaaagatcac 300
agactatggt ggagataagg aaatccaaaa tatggatgac aacattgatg agacatacgg 360
tggtctcgag 370

```

<210> 1003

<211> 568

<212> DNA

<213> Homo sapiens

<400> 1003

```

gaattcggcc aaagaggcct aggtttcggg tggaggactc gttggggagg tggcctgcgc 60
ttgtagagac tgcattcccg agacgatggc ggaggagat aatcgagca ccaacctgct 120
ggctgcagag actgcaagtc tggagaaca gctgcaagga tggggagaag tgatgctgat 180
ggctgataaa gtccctccgat gggaaagagc ctggtttcca cctgccatca tgggtgtggg 240
ttctttgggt tttctgatta tctactatct agatccatct gttctgtccg gcgtttcctg 300
ttttgttatg tttttgtgct tggctgacta ccttggtccc attctagcgc ctagaatttt 360
tggctccaat aaatggacca ctgaacaaca gcaagattc catgaaattt gcagcaatct 420
agtaaaaact cgacgcagag ctgtgggttg gtggaacgc ctcttcacac taaaggaaga 480
aaaacctaag atgtacttca tgaccatgat cgtttccctt gctgcgggtg cttgggtggg 540
acaacaagtc cacaaccaac ttctcgag 568

```

<210> 1004

<211> 551

<212> DNA

<213> Homo sapiens

<400> 1004

```

gaattcggcc aaagaggcct aaactattca gattacttaa cccaatgac aaaatccaca 60
aaaattttga aggcagagaa acagaaggaa tccagtgatg ttttagctcc attagtctaa 120
taggtcagat attaaaaaat tgttcataac aaaattacct tatatggatt attgccatgt 180
tttttgagag ttaattattt actgttttct aattcttgcc agtatattat aacagctgta 240
gcttgatatt tacctactga attttaggag aactaatggt cacagttttg gttcttttat 300
gtgtatgttt ttaaaacagc tattttgtga atctaggttg ttggttttta gaagatttca 360
ggagatgcag tccagcacia ttagagctgg aacattgtta cagcaggctt tttgttgctc 420
atgggcagat agaggggaaag aatcagttgt tagcccaaaa tttccacatt tcagtgttgt 480
aaactctgaa tgtgataggt agatgtgggc taagaataat ttcctccagt gaagacacgg 540
gagaactcga g 551

```

<210> 1005

<211> 662

<212> DNA

<213> Homo sapiens

<400> 1005

```

gaattcgcgg ccgcgtcgac gtggataaat cagtgcctgtc ttctttacca gcaatgacaa 60
aagagatgac agagaatcag aggcctctgcc ctcatgaaca agaggatgct gactgcagtt 120
cagaatccgt gaaatttgac gcacgttcaa tgacagcatc ccttcctcac agcactaaaa 180
atggccccctc ccttcaggag aagttgaagt ccttcaaggc tgccctcatt gctctctacc 240
tccttggtgtt tgcagtacta atacctgttg ttggaatagt aacagtcag gaacatggga 300
attcactgga tgcaatctcc aagtccttgc agagtctgaa tatgacactg cttgatgttc 360
aactccatac agaaacactg aatgtcagag tccgtgaatc tacagcaaag caacaggagg 420
acatcagtaa attggaggaa cgtgtgtaca aagtatcagc agaagtccag tctgtgaaag 480
aagaacaagc gcacgtggaa caggaagtaa aacaggaagt gagagtattg aacaacatca 540
ccaacgacct gactctgaag gactgggaac actcacagac actgaaaaac atcaccttca 600
ttcaagggcc tcctggaccc caaggtgaaa agggagacag agggcttact ggactactcg 660
ag

```

<210> 1006

<211> 166

<212> DNA

<213> Homo sapiens

<400> 1006

```

gaattcggcc aaagaggcct aagtttgtgt cagaatcatg ttactctttg gtatcttctc 60
taccttaatg gttctgaatt acagcctggc ttccaggga gtaaagaaag tgattgttta 120
tgggggaaaa ggagcactgg gcacagagag tgtgcgcata ctcgag

```

<210> 1007

<211> 236

<212> DNA

<213> Homo sapiens

<400> 1007

```

gaattcgcgg ccgcgtcgac gaggaggcca aggagaggag gcaggagcag gccaacctgc 60
agctgcactt gcagcctagg ggcaatagag cagagtgggc agaggctggg ctgggaccaa 120
ccacaggtcc cagtccacac cctgtcatca ttcgctgggc gagctcaggc ctgtcactga 180
atcgctttgt gcctcagttt cctccctaaa atgagaataa tagcatcgta ctcgag

```

<210> 1008

<211> 147

<212> DNA

<213> Homo sapiens

<400> 1008

```

gaattcgcgg ccgcgtcgac ttcaaggcag ttatcttgat tttgggggga tttaatatat 60
taaagctata taatactcag atttgggcac tgtaatgact atatctgtgc tgtaattac 120
atgtatttaa aacgtcacat actcgag

```

<210> 1009

<211> 699

<212> DNA

<213> Homo sapiens

<400> 1009

```

gaattcgcgg ccgcgtcgac cgattgaatt ctaggcctgc ctcagcctcc caaagtgtgt 60
ggattacagg cgtgagtcac cgtgccaggc ccttatgtag tggcatttct aacacaaaag 120
atttattttt acctaaaatg acaatactta ctgggttgcc aaggagaata gttaagttgt 180
agctaaagat gaaaagccca gagtaggcaa gtaagaaaac cgaattggta aaacttcttt 240

```

```

ctccacagga cttctgttag tgatttggtc atgaactttg aaaggagcaa tggcagttcc 300
tccccgatct ccgttctact caccacatcc caataccgta aagtttatga gcagaggaat 360
ttaacataat gcattttaag ttcataaact aacaaaataa cttcagatct tttaaaaatg 420
cttttttagaa gtttggcctg catttctacc tttttcacca tattctgtct cctcagctac 480
ctcctaactc cctgaactta aaactctctg gggtcgcttt ccattaatag cttttgactt 540
tgtttcttat gctttggaaa tgtatgccat agcgacattg ctattttaag aggcttttat 600
atattcacgt tttctccctc ttttctctct gtcttccctt gcccttcctt ctattccctt 660
tcttattctt gccacccccc aacacccccc acactcgag 699

```

<210> 1010

<211> 195

<212> DNA

<213> Homo sapiens

<400> 1010

```

gaattcgcg cgcgctcgac gagaccgtgg tagagaagac agtgggtacac cagaaataac 60
ccaaaggatt gccccttctg tagaaggccc ttagactcca tgatgccttt cagctgggtg 120
ctatacttgc acctaactct gggggcttca ctttctatcc ctacaattac tcaaacagat 180
aaaaggctac tcgag 195

```

<210> 1011

<211> 162

<212> DNA

<213> Homo sapiens

<400> 1011

```

gaattcgcg cgcgctcgac ttcgtccctt tgcttccttc ctgtgatcca gctacagttg 60
tgctcatggg gcctttctgt gaagtagtgc ttgtggttga tattatgggt ttgaacagct 120
cagctgaaga agttattgtc acagctgtga tacgcactcg ag 162

```

<210> 1012

<211> 478

<212> DNA

<213> Homo sapiens

<400> 1012

```

gaattcggcc aaagaggcct aattttttcac cgcttattct ttttgtcttt ttaacaaaca 60
tattatccga attttttttt ctgcaagcca ctgatagtct ctgctaacta gcttaattga 120
ccttttttaca aagtttgatc cccaagcatc ctcaactaaa tcattgaata cttcaatcag 180
gatattatct gctttacttt acaaaataaaa ccaaactctt tgtcaacagg atgaaaccca 240
tcttaaagga aagaaaagga attggtgtga agagagaagt tagagaaggg aaatgcagtg 300
aattactatc tgtgtccatc aggaagtgtg tcctgttaac caaatgggta ctgcactacc 360
agggttactg gtttattttc cagggagctg ataaagcagg agaactgttg ctgcatgttt 420
tctatttgga ctccgtcaca atatggtagg atatccctca ccaactcccc aactcgag 478

```

<210> 1013

<211> 528

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (172)

<220>

<221> unsure

<222> (177)

<400> 1013

```

gaattcggcc aaagaggcct acaagagata gcccagccc agatttccaa atcattaatg 60
gtagataact acaccaagaa tggagtccca ggtcaagaaa gacccaaggg tccctctgct 120

```

```

gttgtgccct ctacaagcac aggaggagtt gctctaccta ttacaacagc cntaganaca 180
gttaacattc atggagatca ctctcttaag aataaagctg agcttgctga ttccatgaaa 240
aatgaagcag ggatcgatga agggcatgtg ataggagaat ctgagtcagt gcacagtggg 300
gcgtctaaagc attcagtaga gaaagtcaca gagctagcaa aagggtcacct ccttcctgga 360
gtgccagtag aagaccagag cctaccagga gaggccagag ccctagaagg atatgcagat 420
agaggttaatt tcccagcaca tccagtgaat gaagagaaag agactaaaga aggggtctgtt 480
gcagttcaga ttcttgactt actggaagac aaagcacaaac agctcgag 528

```

<210> 1014

<211> 478

<212> DNA

<213> Homo sapiens

<400> 1014

```

gaattcggcc aaagaggcct aggaactaca cagaatggag gtggagtccc taaacaaaat 60
gcttgaggag ctaagacttg aacggaagaa actaattgag gattatgaag gcaagttgaa 120
taaagctcag tccttttatg aacgtgagct tgatactttg aaaaggtcac agctttttac 180
agcagaaagc ctacaggcca gcaaaagaaa ggaagctgat cttagaaaag aatttcaggg 240
acaagaagca attttacgaa aaactatagg aaaattaaag acagagttac agatggtaca 300
ggatgaagct ggaagtcttc ttgacaaatg ccaaaagctt cagacggcac ttgccatagc 360
agagaacaat gttcagggtt ttcaaaaaca gcttgatgat gccaaggagg gagaaatggc 420
cctattaagc aagcacaaaag aagtggaaaag tgagctagca gctgccagag agctcgag 478

```

<210> 1015

<211> 515

<212> DNA

<213> Homo sapiens

<400> 1015

```

gaattcggcc aaagaggcct attataaatg acccgggtcaa gttgggtttca aagtccgaca 60
ggcttgcttg tttactagct gcgtggcctt ggacgggttg ctgacatctg taaagaatcc 120
tcctgtgatg aaactgagga atcgggtggc cgggcaagct gggagagca aagccagagc 180
tgcgctgcct caatacccac aaaagaccat tcccagtata cataagcaca ggatgttttt 240
ctcaagaggg atgtatttat cacttggaca tctgtttata atataaacag acatgtgact 300
gggaacatct tgctgccaaa agaatacctag gcagtggctc attgtatgtg aggttgaacc 360
acgtgaaatt gccaatatta ggctggcctt tatctacaaa gaaggagttt catgggggttc 420
agcctaacag ttatggaaac tacagtccct ataaaccatt ggcatggtta taaacagatc 480
ttaagtataa aaattttgta attgggcccgc tcgag 515

```

<210> 1016

<211> 156

<212> DNA

<213> Homo sapiens

<400> 1016

```

gaattcggcc aaagaggcct agggacggag agacagagaa ataaaaaatt aaacgtggca 60
aaaatcaaca aagttccaat gcagcaagca tatggcaaag cagaggaatt cacagagaaa 120
cagagagaga aactggatag gctggggaga ctcgag 156

```

<210> 1017

<211> 173

<212> DNA

<213> Homo sapiens

<400> 1017

```

gaattcggcc aaagaggcct agggaaattt ttcttctccc acattatatt tattcagtga 60
tttatttatg tcagtataga ctcatggata tttattttat accttggtta ataatccaac 120
accactttat tttgttgctc aaattgttcc aactttgccc acaagaactc gag 173

```

<210> 1018

<211> 500
 <212> DNA
 <213> Homo sapiens

<400> 1018
 gaattcggcc aaagaggcct aaagagtata tacctgctga cactgtactt ctctcatcaa 60
 gtgagcccca agccatgtgc tacattgaaa catccaactt agatgggtgaa acaaacttga 120
 aaattagaca gggccttacca gcaacatcag atatcaaaga cgttgacagt ttgatgagga 180
 tttctggcag aattgagtgt gaaagtccaa acagacatct ctacgatttt gttggaaaca 240
 taaggccttga tggacatggc accgttcacac tgggagcaga tcagattctt cttcgaggag 300
 ctcatgttga aaatacacag tgggttcatt gaatagtgt ctacactgga catgacacca 360
 agctgatgca gaattcaaca agtccaccac ttaagctctc aaatgtggaa cggattacaa 420
 atgtacaaat tttgatttta ttttgtatct taattgccat gtctcttgtc tgttctgtgg 480
 gctcagccat ggaactcgag 500

<210> 1019
 <211> 475
 <212> DNA
 <213> Homo sapiens

<400> 1019
 gaattcggcc aaagaggcct aaaaaataat ggaaataaag ctctattaaag gtcctaaagg 60
 tcttgggttt agcattgctg gaggtgttgg aaatcagcat attcctgggg ataatagcat 120
 ctatgtaac aaataaattg aaggaggtgc agcacataag gatggcaaac ttcagattgg 180
 agataaaact ttagcagtga ataacgtatg tttagaagaa gttactcatg aagaagcagt 240
 aactgcctta aagaacacat ctgattttgt ttatttgaaa gtggcaaac ccacaagtat 300
 gtatatgaat gatggctatg caccacctga tatcaccac tcttcttctc agcctgttga 360
 taacctgtt agcccatctt ccttcttggg ccagacacca gcattctccag ccagatactc 420
 cccagtctt aaagcagtag ttggagatga tgaaattaca aggggaaggac tcgag 475

<210> 1020
 <211> 246
 <212> DNA
 <213> Homo sapiens

<400> 1020
 gaattcggcc aaagaggcct agccattcac gtatctttgc agaaatatcc attcaaattct 60
 ctgtctcatt tttcagctgg gttacttccc tttctattgt tgaaacttag gaattctttg 120
 gacactagac tcattcagata tatgatttgc aaatattttc tcttattctg tgggttgtct 180
 ttttactttc ttgataatgt tccggtcagg ccgaattttt tcccgatccc agagaagggtg 240
 tcaaag 246

<210> 1021
 <211> 147
 <212> DNA
 <213> Homo sapiens

<400> 1021
 gaattcgcgg ccgcgtcgac aatgttgctg aagttgagtc atcaaagaat gcttcagagg 60
 acaatcattc tgagaataact ttgtattcaa atgataatgg aagtaattta cagcgtgaag 120
 caactgtcat cagtgaagctt cctcgag 147

<210> 1022
 <211> 217
 <212> DNA
 <213> Homo sapiens

<400> 1022
 gaattcgcgg ccgcgtcgac gcactatata atcaaaaatt actcatccta caaagagcaa 60
 ggggaagcta aataattccc aagggaagaa acaattaaca aacaccatcc ctgagaattg 120

ttgcaaattg ccagatctta aagcagctgc taaaactatg ccctgcaaag taaaggtgaa 180
cactttttaa acaaatatga tgggtcacat cctcgag 217

<210> 1023
<211> 236
<212> DNA
<213> Homo sapiens

<400> 1023
gaattcgcgg ccgcgtcgac attgaattct agacctgcct cgagtgactc cgtcggagga 60
aaatgactcc ccagtcgctg ctgcagacga cactgttctt gctgagtctg ctcttcctgg 120
tccaaggtgc ccacggcagg ggccacaggg aagactttcg cttctgcagc cagcgggaacc 180
agacacacag gagcagcctc cactacaaac ccacaccaga cctgcacctc ctcgag 236

<210> 1024
<211> 173
<212> DNA
<213> Homo sapiens

<400> 1024
gaattcgcgg ccgcgtcgac ttgagacaaa aggtgggttaa gtagcattat tatgtaatgc 60
ttatatacca tagagttttt aatagaagag aaatccattt cctccgaggg tcactattaa 120
caatgtactt ccttaaatat agtttaatga ttgtaatggg tgctactctc gag 173

<210> 1025
<211> 438
<212> DNA
<213> Homo sapiens

<400> 1025
gaattcgcgg ccgcgtcgac cacaggaatg aattacacgc cctccatgca tcaagaagca 60
caggaggaga cagttatgaa gctcaaaggt atagatgcaa atgaaccaac agaaggaagt 120
attcttttga aaagcagtga aaaaaagcta caagaaacac caactgaagc aaatcacgta 180
caaagactga gacaaatgct ggcttgccct ccacatgggt tactggacag ggtcataaca 240
aatgttacca tcattgttct tctgtgggct gtagtttggg caattactgg cagtgaatgt 300
cttctctggg gaaacctatt tgggaattata atcctattct attgtgccat cattgggtgg 360
aaacttttgg ggcttattaa gttacctaca ttgcctccac tgccttctct tcttggcatg 420
ctgcttgcag ggctcgag 438

<210> 1026
<211> 736
<212> DNA
<213> Homo sapiens

<400> 1026
gaattcggcc aaagaggcct aattgaattc tagacctgcc tcgagtatgg aaatagagtt 60
gagggaaatg agaacagaag ccattgccag acctctggaa ataaacgaga ctgaaaaagt 120
gatgagaatt gcaataaaaag agattttgac acaggttcag aagactaaag acctgctcaa 180
taatgtggcc tctgatgaag ctaatttaga agccaaaatc gaaaagagaa aattagaact 240
ggaaagaaat cggaagcgac tagagactct gcagagtgtc aggccatgtt ttatggatga 300
gtatgagaag actgaggaag aattacaaaa gcagtatgac acttatctgg agaaatttca 360
aaatctgact tatctggaac aacagcttga agaccatcat aggatggagc aagaaagggt 420
tgaggaaagt aaaaacactc tctgcctgat acagaacaag ctcaaggagg aagagaagcg 480
cctgtcaag agtgggaagta acgatgactc ggacatagac atccaggagg acgatgaatc 540
cgacagtgg ttggaagaaa ggcggctgcc caagccacag acagccatgg agatgctcat 600
gcaagggaaga cctggcaaac gcattgtggg cacgatgcaa ggtggagact ccgatgacaa 660
tgaggactcg gaggagagtg aaattgacat ggaagatgat gatgacgagg atgacgattt 720
ggaagacgag ctcgag 736

<210> 1027

<211> 508

<212> DNA

<213> Homo sapiens

<400> 1027

```

gaattcggcc aaagaggcct acgtagatca gtctcctttt gtgcctgaag agacgatgga 60
ggaacagaag acaaaagtgg gtgatggtga cctctctgct gaggagatac ctgaaaatga 120
ggtatccttg agaagagctg tcagtaaaaa gaagacagca ctgggcaaaa accattccag 180
aaaagatgga ctcatgtatg aaagaggaag agatgactgt ggaacctttg aggacacagg 240
gcccccttctc cagtttgact ataaggctgt tgctgatcga ctccctggaaa tgaccagcag 300
gaagaacacg ccccacttca acaggaagcg cctctccaaa ctcatcaaga aattccaaga 360
cctttctgaa ggaagcagta tatctcaact cagttttgcg gaggacattt ctgctgatga 420
agatgaccaa atcctcagtc aaggaaagca taagaagaaa ggaaataaac ttttagagaa 480
aactaacttg gaaaaggaaa aactcgag

```

508

<210> 1028

<211> 632

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (166)

<400> 1028

```

gaattcggcc aaagaggcct acaaaaggca gtttaattga tttcagtga gacagactca 60
agaaagaaat gcaaaatcct acttccttga aaatttctga agaggaaaca aaactcagg 120
ctgttagtcc aactgagaag aaagataatt tggaaaacag atcatntacc ttggcagaaa 180
agaagggtgct ggcagaaaaa caaaactctg tggccccatt agagcttaga gatagtaatg 240
aaatagggaa gacacaaatt acacttgat ctgatctac tgaactgaaa gaatcaaaag 300
ccgatgctat gccacagcac ttctatcaa atgaagacta caatgaaaga cccaaaatca 360
ttgttggttc tgaaaaggag aaagggtgaag aaaaagaaaa tcaggtatat gtgctttcag 420
aaggaaaagaa gcagcaggaa catcagcctt attctgtgaa tgtagccgag tctatgagta 480
gagaatcaga tatctcttta ggtcattctt tgggtgaaac tcaatcattt tcattagtta 540
aagctacatc agttactgaa aaatcagaag ccatgctcgc agaggctcac ccagaaatca 600
gagaagcaaa ggcagtagga acccaactcg ag

```

632

<210> 1029

<211> 131

<212> DNA

<213> Homo sapiens

<400> 1029

```

gaattcgcgg ccgcgtcgac gttttatatt gtgttttcca ctagtatata cctgttgatt 60
tgtttgtgcc ttttattaac tgccattttc taaaattttt ttcaataaaa ggaaggaaga 120
tgacgctcga g

```

131

<210> 1030

<211> 720

<212> DNA

<213> Homo sapiens

<400> 1030

```

gaattcggcc aaagaggcct aagcagacat ctgagaaagc ttcagcattt ctcttgctaa 60
cagattcaga aaagtgtctc aaagcagagc acagagtatt ttggtgtttg ctgaagacag 120
cctttgtgcc acaatcactt attaaataag cgatcaattt ccattgaac tgaacatgca 180
acatttatca tacattcagt tctcattcac actccttaag atttggtcag aatttttatt 240
tctgttcatg tcttctactt ttctactcct gtatgaataa aatattgatt tgattacagt 300
ggctttgact ataatgtggg agccaatttt tgccctcagtc ttcattttta tatttacctt 360
gttattctca ggcatttttt tcttctatgt gagagttaa atcattctgt aatttcccc 420

```

```

caaaatcata ttggtattct agttggcaat gtcttacatt tatgttaagt ttgaggggaat 480
tggtagattca agtataagtt aattaaggcc attttatttc taagtgaaca gacttgaaac 540
tccagagcta ctgaagtaaa agttagaatc atttgcattt tcattcagat aggagataat 600
tttgtaaatc ttgatgctat tattttaact ctattagctt aagtaatgtc ataatagaaa 660
acacaagcat ttgaccaaat gagatccatt cagcgactaa ctggcaaggc accgctcgag 720

```

<210> 1031

<211> 1077

<212> DNA

<213> Homo sapiens

<400> 1031

```

gaattcggcc aaagaggcct atgaggtagc ttatttcgct aattaattag ggtgctggat 60
ggtagagaat ttgtcagtc aactatgtac acacagtaaa tactgtttct taggcaaaag 120
taactttttt atatagtgtt aaaattccat tatattccat tgccaaagaa acattaagaa 180
ctttgtatag ctgtataaaa agcaactaat tttttaaaga ataaacattt taaagtcagc 240
aaacatactg tgtccttgca gaagttgatg tgctgagcag cagccttatg ggtgggtcct 300
tttttcttag ttttcaggc ttaacatttt tgattttgtt ttttaatgtt tggaaacataa 360
atgaagattt gatacattat ttcattatct aaaaaggatt aattattcat gctcattgta 420
agaacttcat ttgtagcaa atggcatatc acaggatctg tccagataat cgatattttc 480
agtatacaaa tgtaataaat cacagatgag aatgtactta gctgtatttt caaataagta 540
atcttcccc cttttgtagg actttaaaac taggcacaa tgaacctgtt tttctatta 600
tgcctggaat ttagtcatga taccttgact cattccatca tatttcaaga ggattcagag 660
tgctagaaat ttttttggtt gcctgtaaca cacggcaaca ctggctcctt ggcctatgat 720
gaccacaga tgactcagta tagagttcat tgctaattat aaattactag tgaatctttt 780
tgatatttta agctctagtg ggaaaaatct ggccactttt gtgtttttat gaaggccatg 840
gaataaaaagg atccaaagat ttaaatattt ttatctaata ttttgattgt tttcttaact 900
ttctccttaa aacattcagt agtgataaag atatagaaac tgcactgtag gagaattgga 960
atatttaagg ctggttgaca ttttttattt tcattttata tcttttgtat agctctacaa 1020
ggcagtgctt tgtaatttgg tttcattatg aagatccagt acttggcagc tctcgag 1077

```

<210> 1032

<211> 802

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (770)

<400> 1032

```

gaattcggcc aaagaggcct agacagagtg aagaaactgt gttccccct tgggttgcta 60
tcgatcaagg gtaaaattcc attctgatat caaaatgcag tattcgcacc actgtgagca 120
ccttttagag agactgaaca aacagcgagg agcaggtttt ctctgtgact gtaccatagt 180
gattggggaa ttccagttta aagctcatag gaatgtgctg gcctccttta gtgagaattt 240
tggtgctgac tacagaagca ctctgagaa caatgtcttt cttagtcaga gtcagggtgaa 300
ggctgatgga tttcagaaac tgttgagatt tatatacaca ggaacttta atcttgacag 360
ttggaatgtt aaagaaattc atcaggctgc tgactatctc aaagtggaag aggtgggtcac 420
taaatgcaaa ataaagatgg aagattttgc ttttattgct aatccttctt ctacagagat 480
atctagtatt actggaaaca ttgaattgaa tcaacagact tgtcttctta ctctgcgaga 540
ttataataat cgagagaaat cagaagtatc tacagatttg attcaggcaa atcctaaca 600
aggcgcgtta gcgaaaaagt catctcaaac gaaaaagaag aagaaggctt tcaactcccc 660
gaaaacaggg cagaataaaa cagtgcataa tcccagtgac atcttagaga atgcattctg 720
tgaattattc ctagatgcaa ataaactgcc cacacctgta gtagaacaan ttgcacaaat 780
aaatgataat tcagaactcg ag 802

```

<210> 1033

<211> 442

<212> DNA

<213> Homo sapiens

<400> 1033
gaattcggcc aaagaggcct aagcagaggg aaaacaagag gaaatccaac agaagggaca 60
ggctgagaaa aaagaattac aacataaaat agatgaaatg gaagaaaaag aacaggagct 120
ccaggcaaaa atagaagctt tgcaagctga taatgatttc accaatgaaa ggctaacagc 180
tttacaagta cggttagaac atcttcagga gaaaactctt aaagaatgca gcagcttggg 240
gatacaagtt gatgacttct tacctaaaat aaatgggagc acagaaaaag agaagctgat 300
cgtcgaaggg catctaacca aagcggtaga agaaacaaag ctttcaaaag aaaatcagac 360
aagagcaaaa gaatctgatt tttcagatac tctgagtcca agcaaggaaa aaagcagtga 420
cgacactaca gacgcactcg ag 442

<210> 1034
<211> 219
<212> DNA
<213> Homo sapiens

<400> 1034
gaattcgcgg cgcgctcgac aactaaatat aaaaaatata ggatgatggg tacagtgcct 60
gagaggaggt taaaggagat aaaagtaagt atattttttg agaacaaaat agtaacaata 120
gtgctgataa tgctgtcatt atttatattt tgcacactgt gtgtccagct ctgtattata 180
tttattaatg catccaaccc ttactactac cctctcgag 219

<210> 1035
<211> 118
<212> DNA
<213> Homo sapiens

<400> 1035
gaattcggcc aaagaggcct aagaaaacat gattatgtgt cactttaata caggaaattt 60
agggtgtttt tgggtgtttt gtttttgttt ttgttttctt tccaaagctc acctcgag 118

<210> 1036
<211> 1259
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (285)

<220>
<221> unsure
<222> (603)

<220>
<221> unsure
<222> (619)

<220>
<221> unsure
<222> (645)

<220>
<221> unsure
<222> (675)

<220>
<221> unsure
<222> (707)

<220>

<221> unsure

<222> (737)

<400> 1036

```

gaattcgcgg cgcgcgcgac cctaaaccgt cgattgaatt ccagaccctc cctcccgtgg 60
ctccaaacta atacggactg aacggatcgc tgcgaggatt atcttacact gaactgatca 120
agtactttga aaatgacttc gaaattttctc ttggtgtcct tcatacttgc tgcactgagt 180
ctttcaacca cctttttctct ccaaccagac cagcaaaaagg ttctactagt ttcttttgat 240
ggattccggt gggattactt atataaagtt ccaacgcccc atttncatta tattatgaaa 300
tatggtgttc acgtgaagca agttactaat gtttttatta caaaaaccta ccctaaccat 360
tatactttgg taactggcct ctttgcagag aatcatggga ttgttgcaaa tgatatgttt 420
gatcctatc ggaacaaatc tttctccttg gatcacatga atatttatga ttccaagttt 480
tggaagaag cgacaccaat atggatcaca aaccagaggc aggacatact agtgggtgcag 540
ccatgtggcc cggaacagat gtaaaataca taagcgcttt cctactcatt acatgcctta 600
cantgagtc gtttcattng aagatagagt tgccaaatta ttgantggtt tacgtcaaag 660
agcccataaaa tcttngtctt ctctattggg agacctgatg acatggncac catttgggac 720
ctgacagtcc gctcatnggg cctgtcattt cagatatgga caagaagtta ggatatctca 780
tacaatatgct gaaaaaggca aagttgtgga acactctgaa cctaataatc acaagtgtac 840
atggaatgac gcagtgctct gaggaaggt taatagaact tgaccagtac ctggataaag 900
accactatac cctgattgat caatctccag tagcagccat cttgccaaaa gaaggtaaat 960
ttgatgaagt ctatgaagca ctaactcacg ctcatcctaa tcttactgtt tacaaaaaag 1020
aagacgttcc agaaaagggtg cattacaaat acaacagtcg aattcaacca atcatagcag 1080
tggtgatga aggggtggc acatttacaga ataagtcaga tgactttctg ttaggcaacc 1140
acggttacga taatgcgtta gcagatatgc atccaatatt ttagcccat ggtcctgcct 1200
tcagaagaa tttctcaaaa gaagccatga actccacaga tttgtacca ctactcgag 1259

```

<210> 1037

<211> 588

<212> DNA

<213> Homo sapiens

<400> 1037

```

gaattcggcc aaagaggcct aggagctcct aaaaaataaa aagactaaca atccaacaac 60
aacaataaag gataatgcat atgaagagag tgtacacaca cacacacaca cagagctctt 120
aaacatatgg aaagatgttc catttctactc ataaaaaaag aagtataaat tatcaggaag 180
agatcccata aagagatagc tttgccctt ctctgggggc aaagatgact aagtttgata 240
ccaatttgtt gatgaagggt tggggaaaca aacaagacat ttgtctgatg agagtgaata 300
gggacacagc ctcccagaa agcaatttgg taacatcttt gcaaattgta agcacacata 360
tccttcaatc cagcaattct attctgagat tttatgctac agatatTTTT ttatgtgtct 420
gaaataacct acatgcaagg caattcatgg acgtgttgtt tgtcatagca aaggattggg 480
ggaaaatgta aatgcccagt gatttatgta actggtgtct gccatataaa ggaaagacag 540
cagaagtaca aagaacacag cagcatatct atcaggaatg agctcgag 588

```

<210> 1038

<211> 951

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (160)

<220>

<221> unsure

<222> (286)

<220>

<221> unsure

<222> (438)

<220>
 <221> unsure
 <222> (835)

<400> 1038
 gaattcgcgg ccgcgtcgac gcgggagttt ttaatacaca ctaaagtgtc agttaggaat 60
 taacaggtaa agaaatcaag acattaaaga ttctggatat tagtcctttg tcagatgagt 120
 aggttcgcaa aattttctcc cattttgtag gttgcctgtt cactctgatg gtagtttctt 180
 ttgctgtgca gaagctcttt agtttaatta gattccattt gtcaatttgg gcttttgttg 240
 ccattgcttt tgggtgttta gacatgaagt ccttgcccat gcatangtcc tgaatggtaa 300
 tgcctagggt ttcttctagg gtttttatgg ttttaggtct aacgtttaag tctttaatcc 360
 atcttgaatt aatttttcta taagggtgaa ggaagggatc cagtttcagc tttctacata 420
 tggctagcca gttttccntc gagattgcag tgagccgaga ttgtgccact gcactctagc 480
 ctagggtgaca gagtgcagact ccatctcaaa agaaaataaa ataaaaataa aatcaagagg 540
 aggcagaaaag gggatctgca ggagaggaaa aaaggcagca ctcccaaaaag catggatatc 600
 attatatttg tgaatttttg taaactgtgt gtatacgtgc acttacaaat aactttaaaa 660
 atgtaaataa tgaatataaa cagagagagg cattatagat cttgacccaa atagccagag 720
 tagcttcttg tcattccacac tggccactgg tttcttctaa aggggttcacg cagacttttag 780
 atgtaatgta accatttgga gtagaaagaa atatgaatac tagtctgcaa agacngatat 840
 gaattctctt ggagaacttg agcctctctt tggctggtt ccaaacaac cagtttcttt 900
 ccatgtgtga gggaggaaat tctcatgggc tgtgccagga ggaagctcga g 951

<210> 1039
 <211> 221
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (163)

<400> 1039
 gaattcggcc aaagaggcct agggaaatat agtaattcct aggcatttta actagtgaat 60
 ggataccatg aaccataaatt ggtaaattat ccaaaaatca atcatattta gctaaggaaa 120
 gtgtgtgcaca tgtgtgtgca tgtgtgtgtg tatctgtgtg ttntataatg ggaaattcac 180
 tttaaactaa tgaagaatg atttgaaact ctgaactcga g 221

<210> 1040
 <211> 373
 <212> DNA
 <213> Homo sapiens

<400> 1040
 gaattcggcc aaagaggcct agacatatat gaggccttct ccagacttca gtaaaattgc 60
 ttggttcctt gtcacaagcg caaatctgtc caaggctgcc tggggagcat tggagaagaa 120
 tggcaccacg ctgatgatcc gctcctacga gctcggggtc cttttcctcc cttcagcatt 180
 tggctagac agtttcaaag tgaacagaa gttcttcgct ggcagccagg agccaatggc 240
 cacccttcct gtgccatag atttgccctc agaactgtat ggaagtaaag atcggccatg 300
 gatatggaac attccttatg tcaaaagcacc ggatacgcgt gggaacatgt ggttgccctc 360
 cgtgaatctc gag 373

<210> 1041
 <211> 755
 <212> DNA
 <213> Homo sapiens

<400> 1041
 gaattcggcc aaagagccta gtccagcagc cgagcgttgc ccaactgaga tcaacaatgg 60
 tagaccacgc gatcaacttg ttttctctaa aatgaaagg tgaactggaa cagactaaag 120
 acaaaactgga acaagcccaa aatgaactga gtgcctggaa gtttacgcct gatagccaaa 180

```

cagggaaaaa gttaatggcg aag-gtcgaa tgcttatcca ggagaatcaa gagcttgga 240
ggcagctgtc ccagggacgt attgcacaac ttgaagcaga gttggcttta cagaagaaat 300
acagtgagga gcttaaaagc agtcaggatg aactgaatga cttcatcatc cagcttgatg 360
aagaagtaga gggtatgcag agtaccattc tagttctgca gcagcagctg aaggagacac 420
gccagcagtt ggctcagrac cagcagcagc agtctcaggc ctctgcccc agtaccagca 480
ggactacagc ttctgaacct gtagaacagt cagagggcac aagtaaagac tgcagtcgtc 540
tgacaaacgg accaagtaat ggtagctcct cccgccagag gacgtctggg tctggatttc 600
acagggaggg caacacaacc gaagatgact ttctttcttc tccaggggat ggtaataagt 660
ctccaacag ctacagaggag agaactggca gaggaggtag tggttacgta aatcaactca 720
gtgcggggta tgaaagtgtg gactctcatc tcgag 755

```

<210> 1042

<211> 219

<212> DNA

<213> Homo sapiens

<400> 1042

```

gaattcggcc aaagaggcct aaaaaaagag aaagaagact tgaagtttgt gtttgggtgt 60
tttccagggt atccaaatat gaaagtcagt tctaccaggt ctcaaaacta cggaaactaat 120
gttcatatgt agaaagtcct acaaatgagt acttatgtta tgctagtttt tcttctcttt 180
tcctattttt taaagaacaa agacattcgg ctactcgag 219

```

<210> 1043

<211> 224

<212> DNA

<213> Homo sapiens

<400> 1043

```

gaattcggcc aaagaggcct aggcgggaga aattcttaga aacattcaga aaaactcgat 60
tttaatccgg ttaaaaatca tcagtgtcat tatcatcatc atcatcacca tcataagtat 120
taatataata ataataagta atagtaacta gtaacaacaa taaaaggaa atcagcggaa 180
agtcaggaaa aatgttaaaa aaaaattgga ataacttact cgag 224

```

<210> 1044

<211> 110

<212> DNA

<213> Homo sapiens

<400> 1044

```

gaattcggcc aaagaggcct atgcgggttt ttgttttttt gaaacaggct ctactctgt 60
catctaagct ggggcacagt ggcattgacca tgcctcactc caacctcgag 110

```

<210> 1045

<211> 216

<212> DNA

<213> Homo sapiens

<400> 1045

```

gaattcggcc aaagaggcct aggggtttttc tatttccgta aaaaacaaca gggattgcat 60
tgaatctgta gatcactttg gataatattg acctcttaat gatattaagt attctaatac 120
attaacatgg gacatatttc catttattta tgtcttttaa attttctttt ggcaatgttt 180
tgtatttttc attgcacaag tctttcacct ctcgag 216

```

<210> 1046

<211> 417

<212> DNA

<213> Homo sapiens

<400> 1046

```

gaattcggcc aaagaggcct agagtgaata acctgggttt gaaacagcaa aatctacctg 60

```

```

ttactcgtat tttggacaat cttatggaga tgaagtcaaa ccccgaaact gatgactata 120
gatattttga tcccaaaatg ctgcggggca atgacagctc agttcccaga aataaaaaatc 180
cattccaaga ggccattgtt tttgtggtgg gaggaggcaa ctacattgaa tatcagaatc 240
ttgttgacta cataaagggg aaacaaggca aacacatttt atatggctgc agtgagcttt 300
ttaatgctac acagttcata aaacagttgt cacaacttgg acaaaagtaa cacagaagaa 360
ccttactatg ataatctact tggatgtgg ataatgttaa aaagaagaaa actcgag 417

```

<210> 1047

<211> 163

<212> DNA

<213> Homo sapiens

<400> 1047

```

gtccactttc cgcacatctc cttgacagcc tactcttttt tttttcctgt tacctttttac 60
tattttcttt cgtactttgt gagttttctt tctgcccata ccttaaatgt tgtttcctag 120
aactctgtcc ctaaccattt tctattttca ccccaactc gag 163

```

<210> 1048

<211> 469

<212> DNA

<213> Homo sapiens

<400> 1048

```

gaattcggcc aaagaggcct agggaatgag agccagccct ctgcacctgt gggtttgcac 60
cctcagattc aagcaaccat ggactgaaaa tgtaggcagg actgtgatgg ttacatctat 120
actgaacgtg cacacaatgt tttcttgta tttctctctg aactagacag tggaaaccact 180
gtttaaactg catttacatt gcactgggca gtagaagtaa cctagggatg atttagagtc 240
tacaggagga tgtgactggt cacatgcaaa ccatgtgtcg atgtatatga gatttgagca 300
cctgtggatt ttggtatcct gggcgggtgga ggctctggag ccaatctcta atggatacca 360
agggaggact gtacttggct ctggaggagg ccgttctaac cactccccac actttctgag 420
aacttgggaa gcttgaggca gaggtggccc ccaagagttg gtgctcgag 469

```

<210> 1049

<211> 203

<212> DNA

<213> Homo sapiens

<400> 1049

```

gaattcggcc aaagaggcct atcgattgaa ttctagacct gcctcgagga taactttctg 60
attcctctct gccagccgtt ttgcgtctct tggaaagcca aacggtgacc atgcttctta 120
atztatgcct tcagggtctg gcttctctct tctcccttcc tttctgtgta caccatgcat 180
acatacatat aaatacactc gag 203

```

<210> 1050

<211> 691

<212> DNA

<213> Homo sapiens

<400> 1050

```

gaattcggcc aaagaggcct acacacatta gtccaggcct acacatgac aggatcatca 60
acatcactgt tgatgttgat gatcccaact gaaggtcttc aggggcagta acacgcattg 120
agctgtcatc tcctatgatg tcaatgcctt cttctggata cttcctgagg gacctgcctg 180
aggctgtttt acagttaaat tttaaaaaat ttacattgaa ggagcacact ccaaaatcaa 240
gataaaaagt ataatatagt aaatagataa accagtaaca tagtcattta ttatcattgc 300
taaataatat gtatataatt gcatgtgtta tactcttata caactggcag tgcagtaggt 360
ttgtttgcac cagcagcacc acaaacatga gtaatgcctc gtgctgctgt ttcacgaagg 420
cgatgatgtc acggtgacag gaagttttag ctccattata attttatggg aacaccattg 480
tatatagtgt ggtgttcctt gttgacccaa acatcattat gtgggtgcatg actgtatcta 540
tatttaatat ataatatgta aaatattata agtatcttta cagtagaatc caacctcttt 600
ggcgaggcat ccaggcatt tcacagttgg atccctgcct acctgttgag ctttgtcttc 660

```

caccatgttc ctcacccaca ccatactcga g

691

<210> 1051

<211> 182

<212> DNA

<213> Homo sapiens

<400> 1051

gaattcggcc aaagaggcct gcgcttactg aggacctact ctgctagctg ctgggggactc 60
 tgtgattgaa gatctgctcc ctgtcctagc gttgtaatag tatattagta ggctaaaaga 120
 taacagccat ttcccgtata gcatttgcct atatgtataa tctcttcagc tacatccctg 180
 ag 182

<210> 1052

<211> 184

<212> DNA

<213> Homo sapiens

<400> 1052

gaattcggcc aaagaggcct aaaaatacat gcaacataaa atttgtcatt ttaactacta 60
 aatgtacaat tcagtgggtat ttattacatt tacacattgt gcaaccatca ctactatatt 120
 caaaaactttt ttatcacccc aatcagcctc ttgtaccct ttaagtaata actccggctc 180
 cgag 184

<210> 1053

<211> 131

<212> DNA

<213> Homo sapiens

<400> 1053

gaattcggcc aaagaggcct tcgagacagt ggatgggctg gagaaggaac gtgacttcta 60
 cttcagcaaa cttcgtgaca tcgagctcat ctgccaggag catgaaagtg aaaacagccc 120
 tattactcga g 131

<210> 1054

<211> 341

<212> DNA

<213> Homo sapiens

<400> 1054

gaattcggcc aaagaggcct agtgggaggc ttatatcttg tggagtaatg ggtgtttttg 60
 aagtcctgtcc tgggtactgc acattaaaag gaatatcatt ttctgaaaca ttgctatatt 120
 ccacaccaga aatcatatcc tcttgctggt ccatgtctga agaccttaca cgagaaagtc 180
 ttaatgtaag tttagtagag tccttggtat gagaactaat tatatcatac attgccgctt 240
 tctcactctg ctctttttca tccttgccca atttcatttt cttctgcttc ttttggtttc 300
 tttctggaga atctagcaag atatctggtg gaactctcga g 341

<210> 1055

<211> 130

<212> DNA

<213> Homo sapiens

<400> 1055

gaattcggcc aaagaggcct agagctttcc tacttttcag gtttaaattt atcttttttc 60
 ttctaaaagt atgtttttat cttctaattt ccttatcttc tctattcttt tcttcgctt 120
 cccgctcgag 130

<210> 1056

<211> 131

<212> DNA

<213> Homo sapiens

<400> 1056

```
gaattcggcc aaagagggtct aggtagaata gaaacttcag catctaccaa gtcaagaaga 60
taacttggaa aacaattctg actgacattc caatttaatc acacttaatg aattctgcac 120
tgtcactcga g                                     131
```

<210> 1057

<211> 306

<212> DNA

<213> Homo sapiens

<400> 1057

```
gaattcggcca aagaggccta taggcctctt tggccgaatt cggccaaaaga ggcctaggta 60
agatctgagc ctgccaaaggc cccaggggat atggggaacc cagcagagat gaggtcacaa 120
gaagagggtg ggggcaggga ccagacagac ctggatttca acctgcagg agctgctcga 180
ccccgggcaa tttgcttgcc ccttcctggc ttcaatttcc tatgtataaa atgaggagaa 240
taatgtcaaa taccatatt ctgagaaaaa ccaataactt ggattgaatt ctagacctgc 300
ctcgag                                     306
```

<210> 1058

<211> 141

<212> DNA

<213> Homo sapiens

<400> 1058

```
gaattcggcc aaagaggcct gcccttctct cacaatcata gaggtttcta gcggtcacag 60
ggcatatcac aacagatgat gcataaagta gctatgacaa tccagctact ttctgttaag 120
ctagatatca tagttgcaaa g                                     141
```

<210> 1059

<211> 626

<212> DNA

<213> Homo sapiens

<400> 1059

```
gaattcggcc aaagaggcct agtagcgatg gcggttgggc cgagtgggtg tctgggtgccg 60
gcgtttgggc tacggttggt gttggcgact gtgcttcaag cgggtgtctgc ttttggggca 120
gagttttcat cggaggcatg cagagagtta ggcttttcta gcaacttgct ttgcagctct 180
tgtgatcttc tcggacagtt caacctgctt cagctggatc ctgattgcag aggatgctgt 240
caggaggaag cacaatttga aaccaaaaag ctgtatgcag gagctattct tgaagtgtgt 300
ggatgaaaat tgggaagggt cctcaagtc caagcttttg ttaggagtga taaacccaaa 360
ctgttcagag gactgcaaat caagtatgtc cgtgggttcag accctgtatt aaagcttttg 420
gacgacaatg ggaacattgc tgaagaactg agcatttctc aatggaacac agacagtgtg 480
gaagaatttc tgagtgaaaa gttggaacgc atataaatct tgcttaaatt ttgtcctatc 540
cttttggttac cttatcaaat gaaatattac agcacctaga aaataattta gttttgcttg 600
cttccattga tcagtcacca ctcgag                                     626
```

<210> 1060

<211> 228

<212> DNA

<213> Homo sapiens

<400> 1060

```
gaattcggcc aaagaggcct agctgttttt tttgtgttg ttgttgtgt ttttaatttga 60
taacttcagg aacttgatc tgtgcgtaga gcagtgatcc agacagctgt acttttatga 120
acagtcactc tgactgccaa attagtttgt agtgcaaatc ttgagtgaga acagcacctg 180
ttctcaatgt ggatgaaaaa ggcaaatggt atgggaagca ttctcgag                                     228
```

<210> 1061

<211> 278

<212> DNA

<213> Homo sapiens

<400> 1061

```
gaattcggcc aaagaggcct aagaattcta gaccgcctcg agacgccacg cccagccggg 60
aattctcatt ttttatgagt attacaggtg aaatatccag acacctaaaca gggcagaaga 120
ctcattttta tcaaagaaat aaaaataaat ttttgttttt ttggaaatac tgtgtaaaga 180
ttcattgtaa aattttcttc agcatgttaa cagagaaggt gttcactctc ctctgtgcat 240
ttttttcca gtttgaattg acaaggagcc gactcgag 278
```

<210> 1062

<211> 168

<212> DNA

<213> Homo sapiens

<400> 1062

```
gaattcggcc aaagaggcct aaagatgctg gggagaaaga acatgtcact aagagttctc 60
tgttccattt tctttaccat ttcttttttg aatctggctg cttttccttg ttgtggctgt 120
gacactagta tcactctctg tcccatcatc aacaccatcc aactcgag 168
```

<210> 1063

<211> 279

<212> DNA

<213> Homo sapiens

<400> 1063

```
gaattcgcgg cgcgctcgac cgctcgattga attctagacc ttctctctgc cttttccttt 60
cttcttctctg ctgtcgccga agaatttctt cctgttgtct tcggagttct tctgcctct 120
ttcgctcttc ctcttccctg ttgcccctca tttctgctc tctctctct tgccttagct 180
ttgcagcttt ggccttctct agctgctgaa gctgttccag ggcagggcct ggtgtcgtgg 240
tgtccagagg aagatcccat acactaccac cttctcgag 279
```

<210> 1064

<211> 347

<212> DNA

<213> Homo sapiens

<400> 1064

```
gaattcgcgg cgcgctcgac gcagtcctaa atatatagct ggatacttct taaccttggt 60
gtatctatct ttaatcatat ttgttgtatc ttggaatcca aaaagggtct ggttagacca 120
atagtgaaga attacgttga attaagtaat agttttcaga agtggataag atgttaatgt 180
taatggtgct atccaattgc tcattttcat cttggaaagt ttccctattt ttattcagag 240
gaattactct gatatgttta cctatagtcc ttcccgatcc tgatatactg tctaggacag 300
tatatatgtc tatgttttcc tgttcatcag tacgtagcag tctcgag 347
```

<210> 1065

<211> 252

<212> DNA

<213> Homo sapiens

<400> 1065

```
gaattcgcgg cgcgctcgac ctaaaccgtc aaatttcaga acataaaaaat aaatttccat 60
ttacagattt ccccttcca gttccaaaag tagttattct agagtaagta ttcaacacat 120
aaaatttagc tgaatcaaat aaaaaacaat caccaaatgc aaatatcaat tccaaagcac 180
agattttata tatactgctt tcatatttcc cttttgctgc ttttatctag aaaagaagca 240
aaaggactcg ag 252
```

<210> 1066

<211> 221

<212> DNA

<213> Homo sapiens

<400> 1066

```

gaattcgcgg ccgcgtcgac attatcttcc aggttggtgt tttccacaa aatattggtc 60
taaaaagata atgcagggtt tgcagatact ctacgatggc agaaatcaaa cttcaacatt 120
cctttggcac attttgtttt tcttcaattt ttattgtgtc ttatctgtgt atttgtata 180
tgggggaagg agagagcact agcaagcatg agcgtctcga g 221

```

<210> 1067

<211> 203

<212> DNA

<213> Homo sapiens

<400> 1067

```

gaattcgcgg ccgcgtcgac aaacaattca ttctaattgt tgcctatggt atcaagaagt 60
gtactattgt gagtaaatct cagaatttag gactgtgtga attctgatcc ttacccttga 120
tgatgtattt tcccttagct atatcactac ctttgtttgc taccagtgtt ataattgagg 180
ttgtaggaat tcacggactc gag 203

```

<210> 1068

<211> 204

<212> DNA

<213> Homo sapiens

<400> 1068

```

gaattcgcgg ccgcgtcgac acagggttaag agagtagatc aactgaagaa aaatataatt 60
aaaagaactg ctacgagttc cttaattttt atgacttgga agtttttctt gtttgttttt 120
gagacagggt ctttctttgt caccagggtt gcagtgcagt ggcattgatct cagctcactg 180
cagcctcaac gtccttggtc cgag 204

```

<210> 1069

<211> 244

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (26)

<400> 1069

```

gaattcggcc ttcattggcct actgtnattc tctgtttttt tttttttttt ttcttctctc 60
ttttgtgagc agatctcagg ggagggtggag gaaaggacaa agggaaaggc tctgagtaat 120
ttcttcaaaa tctgtattct ttgtattaaa aatgttcatt cctattaatt ccagattgtt 180
tgcaatgtgc ctactttgcc actggcaaat tgtgacatct ctgaagtcgg ccttcattgt 240
cgag 244

```

<210> 1070

<211> 217

<212> DNA

<213> Homo sapiens

<400> 1070

```

gaattcgcgg ccgcgtcgac gtgtcatttt tttcttatca agaagtcttt ttttaaaaat 60
catccatttc ttgccccatt atgggtgatgt cttttcttaa atccttgaat ttaaagggca 120
aacaatataa ttataatatt tgtaatagcc ttttaataga tcattgcttg ctaattctct 180
catttgcac attaatgaat ctgtttttac taaccag 217

```

<210> 1071

<211> 127

<212> DNA

<213> Homo sapiens

<400> 1071

```

gaattcgcgg cgcgctcgac attgaattct agacctgcc aacctccagt ttaatctttc 60
accttcaa at gatgtcccca ctcagctctat tctctctctt ctgcataatt ctcaccacgt 120
cctcgag                                     127

```

<210> 1072

<211> 755

<212> DNA

<213> Homo sapiens

<400> 1072

```

gaattcgcgg cgcgctcgac gtctcttttc tgctctcttc cccttggtta catataaaaa 60
tacgttttttc agttggggtt ggtgggtcac gcttgtaatc ccagcacttt gggaggccaa 120
ggcgggtcga tcaagagggtc aggagtttga gaccagcctg atcaacatgg tgaaacccca 180
tctctagaaa aatacaaaaa ttaccaggtt gtgggtggcg gtgcctgtaa tcccagctac 240
tgaggaagct gaaggaggag aatcgcttga acccaggagg cggaggggtgc agtgagccga 300
gattgcgcc aacgtctcca gcctgggcaa tagagcgaga ctccatccca aaaaaaaaaa 360
aaaagacaag tttttgtgaa tatggcttaa taccacaaac aagaatacca aagaatctat 420
caaaatgtta ccacattgat attatggcaa aggcattaac cagctctagg atttgtaac 480
aaccagctct aaagttttta ttttacagat aagggtcaaaa cagtgggtta gagagacgaa 540
gtaacttcct caaggttaca gttagtaaat atcccagtta ggattcaaag caagcttttt 600
ttgctttaga attcttcccc aggtcactgc ctcttccatc aacttcaact atttataaat 660
tctcccaagt tccccaaggg agtttagatt gaatgatgta aagagcgaaa acataggact 720
gactgaatga ttctcatctt ttgactctt aaagt                                     755

```

<210> 1073

<211> 580

<212> DNA

<213> Homo sapiens

<400> 1073

```

gaattcgcgg cgcgctcgac cctaaaccgt cgattgaatt ctagacctgc ctcgagttgc 60
catctcaaaa aaaaataaaa ataaaaata actgattcaa tccttgcaac agccctgtga 120
tgcaagtatt cttatcccta ttttacagat tgggaaatga ggcacagaga ggttaaatgc 180
cttaaccagg gtcacagggt acatcatttg taaatggcag aaccaggact tgagaccagg 240
cagtcctagt ctcttgccca tactcctaac catcacctta cacagcctcc ccccagggtt 300
tattacattc accagattat ttggtgaagg aaatcccaat tttgttatgg cgttggtaac 360
tgctctatga actatatagt taatctta atccaaaagca agaagtctgt tcaagcataa 420
actcatatcc cttgaatcat ttttctagag gaacatggaa tgggtgctg atgggatgtt 480
gctgtgtctg ttgcaaccca atatttttaa caaggtaaaa gggtatatat gaggagaata 540
agagcttaac tccaagtagc taaggagaga aacctcgcag                                     580

```

<210> 1074

<211> 322

<212> DNA

<213> Homo sapiens

<400> 1074

```

gatggagaga aatcacaggc tggaggatat ggagagaaat cacaggctgg aggatatgga 60
gagtaatcac aggctggagg atatggaggg taatcacagg ctggaggaca cggagagaaa 120
tcacaggccg gaggacacgg agagaaatca caggccggag gacacggagg gtaatcacag 180
gccggaggac acggagggga atcacaggcc ggaggacacg gagggtaatc acaggccgga 240
ggacacggag agaaatcaca ggccggagga caggagggtt aatcacaggc tggaggatat 300
gcagagtaac cacagactcg ag                                     322

```

<210> 1075

<211> 399

<212> DNA

<213> Homo sapiens

<400> 1075

```

gtttatgtca tgggtgggtgc agatgtcccg ttttcttctt gtttacgaga agttgaaaat 60
ccacagaatc aattgagatg tagtcaagaa atggagcctg taataacatg tgataaaaaa 120
tttcgtactc aattttacat tgactgggtgc aaaatttcat tggttgataa aacaaagcaa 180
gtgtccacct atcaggaagt gattcgtgga gaggggattt tacctgatgg tggagaatac 240
aaacccccct ctgattcttt gaaaagcaga gactattaca cggatttcct aattacactg 300
gctgtgccct cggcagtggc actggtcctt tttctaatac ttgcttatac catgtgctgc 360
cgacgggaag gcgtcatcca actggtcac cacctcgag 399

```

<210> 1076

<211> 219

<212> DNA

<213> Homo sapiens

<400> 1076

```

gaattcgcgg ccgcgtcgac cgaaatgcac ctttggttg catttggtgc tcagtgtatt 60
ctattggaca gtcagtgcac tatatactct gacttcagtt tggcatctca atttttgaca 120
ataacatatg aggggaaatc agaagccttt ctaaaagcta cagtttggtt gggcgtgcag 180
gctcatgcct gtaatcccaa cacttttaga gagctcgag 219

```

<210> 1077

<211> 169

<212> DNA

<213> Homo sapiens

<400> 1077

```

gaattcgcgg ccgcgtcgac cgattaagca gttatgcatt actggggaaa ctacctttta 60
gagatttaga aaagcttttag aatttagtaa atcaaataaa aataggtata caatatttta 120
gacatagggt ttcaacatgt tacatgggtg gataatggag tgcctcgag 169

```

<210> 1078

<211> 152

<212> DNA

<213> Homo sapiens

<400> 1078

```

gaattcgcgg ccgcgtcgac cacagccagt agatgattac ttcgtgggaa ggattcctcc 60
tcttctctgt cctcagcccc ctctactctg ctccccgggg gccaggaccg ggtggagggg 120
gctgtgggaa ggattcctcc tcttctctgt cc 152

```

<210> 1079

<211> 235

<212> DNA

<213> Homo sapiens

<400> 1079

```

gaattcgcgg ccgcgtcgac cctgccttgg gcaaaatttg tgtgtgtggt tattcacaga 60
ggaggagcca gataggtagc tcagtccata aactatggaa ggtagcagta tcctttactg 120
cagtggcttt caaatttgac atgcaccaa atctcctgga gagcttgta aaacatagaa 180
agcagggcct catccccac gtttttgatt cagtaggtct gggttggggc tcgag 235

```

<210> 1080

<211> 202

<212> DNA

<213> Homo sapiens

<400> 1080

```

gaattcgcg cgcgctcgac ccacatctct ttgctttagt ctatggtaag gctattcaaa 60
ttctacattt tcattaggcc ttcttatgct actaaaggga tttaattacg tgttcctcat 120
tctttttatt gaactgtgta tgtttttcat agtttctttg tattatgatt gctttctttt 180
cttctacctc cgaaagctcg ag
202

```

```

<210> 1081
<211> 231
<212> DNA
<213> Homo sapiens

```

```

<400> 1081
ggtctgcctg cacttagaga accttacaga accatgtggc tgggtgggtga gaatgactcc 60
cagcataaac ggccttcgag tgcattgtcg gttctgagcc tcatccttcc cacaagtgc 120
tcttgagag cagcacagc ggccttcgag ggccttcgct cctctgtcct ggccttcgct 180
tcttctgtaa catccccctt tctttcatat aaacatcaac gcagactcga g 231

```

```

<210> 1082
<211> 407
<212> DNA
<213> Homo sapiens

```

```

<400> 1082
gaattcgcg cgcgctcgac cagcaaatcc caaatatcca gactgactcc tatgaaagta 60
tggcaaaaa caccaccaact ggtggccttc caagggaccc ccaagaactc atggttgata 120
accctttgaa tcagctctcg actctagcag ggcagttgtc cagtctgcca cccgaaaacc 180
aaaaccctgc atccccctgat gtagttccct gccctgatga aaagccttcc atgattcagc 240
agccctctac ccaagcagta gtttctgccc tatcagcaag tattctctcag agctcctctc 300
ccacaagccc agaacctcgg ccatcccata gtcaaaggaa ctatagtcca gtggcaggtc 360
caagcagtg gccaagtgc caccagagca ctcccagcga cctcgag 407

```

```

<210> 1083
<211> 449
<212> DNA
<213> Homo sapiens

```

```

<400> 1083
gctctgagtt ctctttattt tgggtggtctc agtctctatc ttccacgttg tgaatttttc 60
tcaaataat ggtgaccta tggatctgtt catgttttaa gagtyaggca tccaaaagct 120
gattggaagt tgtgtgtgcc aactgggtgag cttttccact agggtcacca ggtgggcacc 180
tggactcatc attggagaac actgcctgtc agtatttgca cgtgttttct ctggggctca 240
ttctgtttct tgagagatat tcccactact ctcttctctg ggaaacgggc atacacaggg 300
cttttagcct atgctgagta ctcatgtggt ttcaaaaatg gtgtcccatc tgggcagaag 360
tcccatgag cacttggtt gactggcaca ggacacctt tgcctcttcc tccagacata 420
cccagctctg agcttgagca atgctcgag
449

```

```

<210> 1084
<211> 216
<212> DNA
<213> Homo sapiens

```

```

<400> 1084
gaattcgcg cgcgctcgac cacttaaaaa tgccactgtc tgtggtttcg gtataaatcc 60
tgagtataac ttttcacagt gacaaaaatg attgagatgt actttactgg gttttttgtt 120
gttgttttgt tttttgagac agtctcttcc tgtagccag gctggaatgc agtggcacga 180
tctcgactca ctgcaacctc tccatccaga ctcgag
216

```

```

<210> 1085
<211> 447
<212> DNA
<213> Homo sapiens

```

<400> 1085
gaattcgcgg cgcgctcgac ggagatgttt acatttttgt tgacgtgtat ttttctaccc 60
ctcctaagag ggcacagtct cttcacctgt gaaccaatta ctgttcccag atgtatgaaa 120
atggcctaca acatgacgtt tttccctaata ctgatgggtc attatgacca gagtattgcc 180
gcgggtggaaa tggagcattt ttttctcttc gcaaatcttg aatgttcacc aaacattgaa 240
actttctctt gcaaagcatt tgtaccaacc tgcatagaac aaattcatgt ggttccacct 300
tgtctgtaaac tttgtgagaa agtatattct gattgcaaaa aattaattga cacttttggg 360
atccgatggc ctgaggagct tgaatgtgac agattacaat actgtgatga gactgttcct 420
gtaacttttg atccacacac gctcgag 447

<210> 1086
<211> 263
<212> DNA
<213> Homo sapiens

<400> 1086
gaattcgcgg cgcgctcgac aggatgttca caactgtatt cctgagctgg acagtgagac 60
agccatgttt tctgtctacg atggacatgg aggttaacttt aacagatcat attggttaaca 120
ttctaggacc ccaattccag acgttccag gcaagaacag gtccctttgt tcatttacct 180
tccagggtct ggccctcatt atcatttcct gcgtggtgct gtttttctgt attctgtcat 240
tcttttttcc cagcaggctc gag 263

<210> 1087
<211> 428
<212> DNA
<213> Homo sapiens

<400> 1087
gaattcgcgg cgcgctcgac ccaaaaacca aaaacaaaaa caaaacaata aactgaata 60
aagtcataat ggtaaataac attgcgtttc tgcttggttt tagcgctgc ttcgcgggtt 120
cctgcttgct gattgcgtac ggagcaagta aaccaaaccg tgagtgtcct ctccctccat 180
cttctgtcag ggaccgggga gagagtgcc tgagctgtc ccaggcccac ctgctcttgg 240
acactgtcct gggcctgctg ctccctgctc aagttagagg ggacacctgt tacgcctcta 300
ctcagttact tatctcaaat agacggcgag atcagagagc agccacccca gacaggagct 360
tccagggtat gagcaacttc catctcatca ccaaaccaag ccagtcctc actgatgaca 420
acctcgag 428

<210> 1088
<211> 226
<212> DNA
<213> Homo sapiens

<400> 1088
gaattcgcgg cgcgctcgac gtgaaagca tctgtagact tccgcagaaa gcatccgtag 60
acttccgtag aaagcactga tgatgttgta taaacagacc ataaggagat tgaagccctc 120
catgtattct gtttgccctt ggaatatatg tgcattgtga tgtgcttggt tgtttatttt 180
catttgggtt tatgccctat ttttaatttg taggcagcaa ctcgag 226

<210> 1089
<211> 227
<212> DNA
<213> Homo sapiens

<400> 1089
gaattcgcgg cgcgctcgac gctgatcaac aggggtgtcgt tcaaggaatg ataacaggaa 60
ttcgaggatt atgcataagt ctgggaccgg cctctatgg attcattttt tacatatctc 120
atgtggaact taaagaactg ccaataacag gaacagactt gggaacaaac acaagccctc 180
agcaccactt tgaacagaat tccatcatcc ctggcccaac cctcgag 227

<210> 1090

<211> 102

<212> DNA

<213> Homo sapiens

<400> 1090

gaattcggcc aaagaggcct aatggccaat aatcacaggg gcttttgaaa atacgttcaa 60
cattactaat tttttaaga gatgaggctt tgcttactcg ag 102

<210> 1091

<211> 646

<212> DNA

<213> Homo sapiens

<400> 1091

gaattcgcgg ccgcgtcgac atcatgactg ttatttttat ttgcacttgc tggctcttgt 60
agcagcattc agcacagggtg ccaaaatatg ctccatttgg ggggcagatc tattttgaca 120
gtatttgact acatatagca agagtgtgaa atatgttaaa cactagacat cctggttatc 180
aaaaccaatg agcattactt tcatggcagc aagtgtcatg cagttatttt ctgaatttgt 240
caaagaggca gtagtttcta acccctgttc tatagtagtt acaacaattt cacaacctat 300
gtttacagat tcttcataaa tacatgcata ctgacactat aatcatggga ggtgtaacca 360
tgattagtag gcgagggtacc taccactttt tttttttctt cccctggcta cttgagtaga 420
atgcattata ccagatctgg tcaactttcat tgaaatgggt tctaattttc tcccaagtgt 480
ctgttgggtt tttttcttct taaggaaaac gttgtcactt ttatgttata aacttgaatt 540
tataaagtgc tggtaaatta tttttaatga ttgagtgca tgttttaaac ctctaggacc 600
agagcatagt cagagcattt tcttttaaat tgtgcactaa ctcgag 646

<210> 1092

<211> 195

<212> DNA

<213> Homo sapiens

<400> 1092

gaattcgcgg ccgcgtcgac ctgtaaatc atttgtcatt caaagcggaa taacaagtgt 60
tccctagcaa aaccgtgag cgctttataa ttttgtggtg tatttttgtc agtaggtagc 120
agaggcgaa gtattttttg gtgtaattct tgaaattttc tgacaggaaa caaataaaga 180
tagatgagtc tcgag 195

<210> 1093

<211> 709

<212> DNA

<213> Homo sapiens

<400> 1093

gaattcgcgg ccgcgtcgac atcacaggct tgtggtggcc ccgaaatggg gggcctgcta 60
gtcaggagga tgctgtgcac actgtgtgtg atgaatctcg ccagaaaggc tcctgagggtc 120
ccaggttggc acttctccct gcagccattg tagaagatct gctggtcctt gcaggcaaag 180
ctacagccag aatgtccgtt tgaaactcct agctcatctg tcaccgagct tcatccgaat 240
gtgccacgga gcttgccttc cacttctctc gtgcagcggc cctgccacag ccctccctcg 300
gcacactttg acccttttga ggattggaat tagcaggact cggctattta aagcaccagt 360
ctgggggtcgc ctggggccct gctgacctc tctccagag cagccagccc agcccgggaa 420
caagacggac ttcctctccc ttcggactca cagcctttgc agagtcaagc tccacttgaa 480
gtcactcag taatatcctt tcaatgtgtt ttatattgtt ttgactgcct tttttttag 540
aaataaaaaa tgaccttaga atttatcgtc agataaactt gtaaagattt gaattataat 600
gtcttttcaa ggcaaatggg attgtccctg cactagtaga gaatccatgt cgctctgaca 660
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<210> 1094

<211> 770

<212> DNA

<213> Homo sapiens

<220>
 <221> unsure
 <222> (44)

<220>
 <221> unsure
 <222> (66)

<400> 1094
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 aactgcaccc acagtccttct tccactgact tcctaataaa gataaaacac cagacgtcaa 180
 aacctatatg aggcgagtgga agcttgacat ttatgccaaa aaaagggtgtc cctctctaggg 240
 aaaaaataac tgcctcctta aggactcaag atcattaatc ctcattcacc ccactaatta 300
 ccttttctac tcctatccag tctcatgagg gatgatgttt tattatgttc ctcctgttgg 360
 aggggctaag ccattgtctt ctactcaata aatttttact gagcttctat tatgtatcag 420
 gaactgtgcc aggcattggag gctaaaaaca tgtataatta tagtagtaac cttcattgag 480
 tactgactat gtgccagcta ttttaaattgt attatctttt aaatcctccc aacagcccta 540
 ttcaaatagg tactattatc acccccactt tacagatgag gaaatcgatg cacagagaaa 600
 ttaagcacct tgcctatggg cataagtggg agaagtagaa ctttaaacct acctttctct 660
 agtaccagag tcaaaacttt cattgtaaca tgtacattac tgtgataagg attttgccgt 720
 atctcatgtg attgtcacag aaaacaccat aaggcagggg caacctcgag 770

<210> 1095
 <211> 774
 <212> DNA
 <213> Homo sapiens

<400> 1095
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 ttttaattgt tcttatagtt agttaactta aacctgtggc ctagggttagc cattaactga 180
 attagttcag attatttctc ttaacctatt gttgcgtata gtattttagg tttttgttga 240
 gatggatact attgtatatt taaaaatgca tagaacttgt caaagatagc ttaatttgcc 300
 tttctacctt cataaaaaatg ttaaaagtta agggattttt aaaatgtcat tagatattct 360
 tatctgaatc atttatatat taccataaat cacagttgta ttaagtcagc catgaagatt 420
 tcctccttaa tgcaaatgaa cgcataaggt atctagaaag cgtaattttg tgagggaaca 480
 aattaaagcg gttagaattg ctgtggagct gtatatgata gatgaaatat ttttaattgaa 540
 gacacaaata gttctaatat ttctaattgag aaagtgtgta gatcatttaa tgtcgtagga 600
 gaccaaagta gaaatttgga aaaagttaaa atgactccta aattaccagc caagttgtaa 660
 agatacacct tttctcagcat gcattctcat gatagcataa caatgtataa tatatctgat 720
 tactgtcata attgactacc ttgaaagata atgggttctaa gggtcaaact cgag 774

<210> 1096
 <211> 618
 <212> DNA
 <213> Homo sapiens

<400> 1096
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 tgggtgtgtg ttacgcccag aactgctcgg tgtcggggtt ctaaaagaat gcgctgggtg 180
 tcttggtctc aagtttctgc tttggagaag cagattcagg aagtaggtgt tgcttaaaaa 240
 taattcttgg tttttatcta atcagatatt cattgattac ctaccagggtg ccagttatag 300
 ggtgttttgt ttactcaaga atgaagtaga actattttta aaacctgtt ccatgagtgt 360
 tcacgttagg tgacctaacg tttgaaggag aaaaacattt tctgggtatg aataatgagt 420
 tttgtaatca attcccagtt agaagaattt cagtctctgg gccattgagc ttggcagtgt 480
 tgagatctcc catgtgacag aagcctggca tctggggcac caaggctcac tgactgtgta 540
 ccttgacagc tgtagacca tgtcgtggcg gtaacggggc caaacacagt cattcccatg 600
 tgaacgatga aactcgag 618

<210> 1097
 <211> 863
 <212> DNA
 <213> Homo sapiens

<400> 1097
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 actccataca ggcatagcta tgatgcagt aatcccttag aagttacaat tctcaaat 120
 cactcttcct cagatgtaac attagaactc aatatttcta acaataacat accagaaaag 180
 gctggactgg cactcatctg ctgactaact tgtagcctca gtaatatgac atacttgctt 240
 ttaacaaatt atctcaaatt aactaacaga ccttcagaaa atggagattc tttttgatgg 300
 ggacataatc aaatttaagt ctgagaaata tgcttaacag ttggaactca aattaaatgt 360
 actgatttta aagtttagac attaacaagt gatagattag cctcaaaaaa agacaatttg 420
 gtaagggtta ggtcttttaa tttgggtgct gtccacaact tgactgggtg tcttttctct 480
 gctgtcttca catcaagcca tggggccaat tctattttca gtaaatgttt gacagctttt 540
 tacttagtaa cagtctcagc acttttatta agcatgcaag actaacaaaa actttggcaa 600
 tgcataagt taacacagtg acaagagagc ttttacaatt aagtcttcta atactgcctt 660
 cacagtgtgg aaattgtgct acatccacca aaagagggcc ccgtctactc aaatatttcc 720
 gtacttcacc ccaggaacaa actcctttgc atttggtatc agattgtctt tgaccacaag 780
 atcttcaga gaagagccat cactgataac aaggtcatta aactgggtctt ggatttgggtc 840
 catagtctgt gggagatctc gag 863

<210> 1098
 <211> 663
 <212> DNA
 <213> Homo sapiens

<400> 1098
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 atggttctat tgattatact gtccacgaag cctggaatga agccaccaat gtttacttga 120
 tagttatcct tgttagcttc ggtctcttca tgtatgcca aaggaacaaa aggagaatta 180
 tgaggatatt cagtgtgcca cctacagagg aaactttgtc agagcccaac ttttatgaca 240
 cgataagcaa gattcgttta agacaacaac tggaaatgta ttcatttca agaaagtacg 300
 actatcagca gccacaaaac caagctgaca gtgtgcaact ctcatggaa tgaaacctca 360
 gaaaaagagc aacagaagta attgtttcaa gctcctgatt ctttctacta aatcatgaac 420
 agctttaaaa acatttctgt ctgcataaaa ttattttact tgtaactttt cccaattgtt 480
 tctgtgcatt gttttgcctt tttaaattac atctccaagt ggctcaaaag gccttgacac 540
 aggggaacctg cacatatcca ggatatgtgt aaccagcgat ggtgacttga ccttgccaag 600
 acctgtgatt ccttcaggat acaatcagtg agaaaataaa acacatcttg ggaagtgtctc 660
 gag 663

<210> 1099
 <211> 536
 <212> DNA
 <213> Homo sapiens

<400> 1099
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 ctcaaatgca gtggtttttt tgacacgctc ctctggggtc tttatgtata ccacagaatc 120
 agccacgtta cagtttgaat taatcatttt ctcaaaaagg agtcccagaa gtgaacccaa 180
 acaaaaagct actatccctt tacagtttga aagtagaaga cactggtgat gtactcagct 240
 ttcatctttt atccttcgat gataaattga cccaaatgta cctctggcca ggaagaagca 300
 aggaatttaa atagtactag atgtcaaaca atactattaa aatacttcca atttgaatat 360
 cacatcacag ttttgaaaat gcattctcat ttattattgc tttgttctcc tgtagtaca 420
 aagggaacac tgagggtaca catctaggaa tcaaaactcat gtcttcta tcttgagcta 480
 tatctacttt ggtctatagc ttctaaattt gtaatagaag ctcaaaaata ctcgag 536

<210> 1100
 <211> 586
 <212> DNA

<213> Homo sapiens

<400> 1100

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gaattcgcgg ccgcgtcgac ctacagagtgc gcccaatctt ggaatcttta agggatgagc 60
cagaccacaga ccccgggcct tctagagagg gtccggcagg gagggctcggc gccctggccc 120
ggggtggggcc ggagccctgt gatgctgcat cgcgccagg aggagccagc tgtgccccag 180
agttggcgcg gccgagagag gacaagagcg cgcagcaggc gaagctggag ggcgggactc 240
gactttgttg tcgctgcccg gaggagtcca gactgggtacc cggaggagct gtctcaccag 300
gagaccacgt cctggaagtg tccgggactc gcgggacctg tggctgcaga ccccgccggc 360
acgcaggccc agagctggcg cactcccgag gatgagactc tggggggcct agccggggtc 420
cacgggaggg ctgtccttgg ggactctagg atggcttcgt tctggcccgg ctcaactctg 480
gagctgtgag acccaagaca aaaggggctg agggatttct cattgacaag agttcgtgcg 540
ggaaaaccac ctgaccccta gggatttctc atcttggact ctcgag 586

```

<210> 1101

<211> 228

<212> DNA

<213> Homo sapiens

<400> 1101

```

gaattcggcc aaagaggcct aaaccgtcga ttgaattcta gacctgctgt tttgaattcc 60
tgcaactct ctctctcttt tttttcttt ttaaatggtc gcactttgtt gccaggctg 120
gagtgcagtg gcacgatcat ggctgactgc agcctcaacc tctgggttc aagggatccc 180
cccagctcag cctcccaagt agttgggact acagccgcac cactcgag 228

```

<210> 1102

<211> 905

<212> DNA

<213> Homo sapiens

<400> 1102

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gaattcgcgg ccgcgtcgac ctacttttct tggaaatgca aaagattatg catatttctg 60
tcctccttcc tcctgtttta tggggactga tttttggtgt ctcttctaac agcatacaga 120
taggggggct atttcctagg ggcgcgatc aagaatacag tgcatttcga gtagggatgg 180
ttcagtttcc cacttcggag ttcagactga caccacacat cgacaatttg gaggtggcaa 240
acagcttcgc agtcaactaat gctttctgct cccagtttcc gagaggagtc tatgctattt 300
ttggatttta tgacaagaag tctgtaaata ccatcacatc attttgcgga acactccacg 360
tctccttcat cactccagc ttcccaacag atggcacaca tccatttgtc attcagatga 420
gacccgacct caaaggagct ctcccttagct tgattgaata ctatcaatgg gacaagtttg 480
catacctcta tgacagtgc agaggcttat caacactgca agctgtgctg gattctgctg 540
ctgaaaagaa atggcaagtg actgctatca atgtgggaaa cattaacaat gacaagaaag 600
atgagatgta ccgatcactt tttcaagatc tggagttaaa aaaggaacgg cgtgtaattc 660
tggactgtga aagggataaa gtaaacgaca ttgttagacca ggttattacc attggaaaac 720
acgttaaagg gtaccactac atcattgcaa atctgggatt tactgatgga gacctattaa 780
aaatccagtt tggaggtgca aatgtctctg gatttcagat agtggactat gatgattcgt 840
tggtatctaa atttatagaa agatgggtcaa cactggaaga aaaagaatac cctggaactc 900
tcgag 905

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<210> 1103

<211> 497

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (24)

<220>

<221> unsure

<222> (32)

<220>
 <221> unsure
 <222> (124)

<220>
 <221> unsure
 <222> (325)

<400> 1103

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atcnaagaga aagaaaaatc ctgaaagagg aaaaaataaa caaccttact cagagaggaa 180
caaagataag aattacttcc agcttttctt cagaaacat gaaagcaaga gaagagtggg 240
gtgaaatatt taaagtgttg aggccgggca cagtgttca cacctgtaat cccagcactt 300
tgagaagcca agacagaaag atcanttgag atcagcctgg gcaacatggt gaaaccccat 360
ccctacaaaa aaaaaaagt ttttaattag ctgggtatgg tgggtgcacac ctgtggtccc 420
agctgagtgg ccctagagtt tgtaatatat agctaaccac agtccacttt caaataaacac 480
tataccactt cctcgag                                     497

```

<210> 1104
 <211> 683
 <212> DNA
 <213> Homo sapiens

<400> 1104

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gaattcggcc aaagaggcct actctttggc cggccaaaga ggccatatgg actctgcgcc 60
accctcgccct gctcgaccca gccttccgag tgcacactcc tccgactacc cgctgcctcg 120
aagtcgctcc tccagtgcct ccgcgcgctc ccggtcacc ccacgcccac tttccacgat 180
cgcgcgctcg ctcaaccccc ggcgcttctg gcgctcgcta cccagtggtc aaccggcccg 240
acccttcggac ccgcgaggtt tctgcttagt aactcccaat cctgaaaaac tccaaccctg 300
tggagtctccc ccataatcaa gaacgcccct cagcccgcga actgccgcgc aaagactctc 360
cctgaacctt ccgggacggc acgaagcgcg cccgacccga ggtgcccgag agtgaggagc 420
accccagtc tgaaggcccc tggggcccg gcggcacgcc ccgactctgc ttggagaccc 480
ccaacttgct tagagaggcc actgctccaa gtcttactcc ctctggggag cgccttcccc 540
cgacccctga ggggcccgc tcgcccgcgc tcgggtgcac caccttgccc cgcagaagta 600
tctgggagct gcagcccgcg ggccgcgcgc gctcggcgcg cgctggggag aagttggcag 660
aagccgcccc tcaacacctc gag                                     683

```

<210> 1105
 <211> 970
 <212> DNA
 <213> Homo sapiens

<400> 1105

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gaattcggcc aaagaggcct agaagaattt ccagtacat ttgtaaatga cgccgctcga 60
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cagtctccag cgcaggcttc cttaccgggc gaccacaatg tccgagtttc tcttcgctt 180
actcactctc tcgggattat tgccgattgc cagggtgctg accgtgggag ccgaccgaga 240
tcagcagttg tgtgatctcg gtgaattctt ttgccacgat cacgtgactt gtgtctccca 300
gagctggctg tgtgatgggg accctgactc ccctgatgat tcagacgagt ctttagatac 360
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caaatgtgtt catttatccc agctgtgcaa tgggtgtctt gactgcccag atgggtatga 480
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atgtacaatg gtcagaaata gtacaagatg ttactgtgag gatggattcg aaataacaga 600
agatgggaga agctgtaaag atcaagatga atgtgtgtt tatggtacat gcagccagac 660
ctgcagaaac acacatggat cctacacttg cagttgtgtg gaaggctacc taatgcagcc 720
agacaacaga ctttgcaagg ctaaaattga acctacagat agaccaccta tactattaat 780
tgcaaatctt gaaacaattg aggttttcta tcttaattga agtaaaatgg caactctaag 840
ctcagtcaat ggaatgaaa ttcatactct ggattttatt tataatgaag atatgatttg 900
ttggattgaa tcaagagaat cttcaaatca actcaaatgt atccagataa caaaaacagg 960

```

aggactcgag

970

<210> 1106

<211> 120

<212> DNA

<213> Homo sapiens

<400> 1106

gaattcggcc aaagaggcct acgagaggcg tgtgagtaaa aaggaacagg acagcatcgc 60
 aattggttgt taagggtgctt ttgaaaaaaa aaattatttc gagtgatgtt gctcatgcag 120

<210> 1107

<211> 541

<212> DNA

<213> Homo sapiens

<400> 1107

gaattcggcc aaagaggcct actggatttg gactaaagaa aaaaggaaag gctagcagtc 60
 atccaaaaga atcatgagac agactttgcc ttgtatctac ttttgggggg gccttttgcc 120
 ctttgggatg ctgtgtgcat cctccaccac caagtgcact gttagccatg aagtgtctga 180
 ctgcagccac ctgaagttga ctcagggtacc cgatgatcta cccacaaaca taacagtgtt 240
 gaaccttacc cataatcaac tcagaagatt accagccgcc aacttcacaa ggtatagcca 300
 gctaactagc ttggatgtag gatttaaacac catctcaaaa ctggagccag aattgtgcca 360
 gaaacttccc atgttaaaag ttttgaacct ccagcacaat gagctatctc aactttctga 420
 taaaaccttt gccttctgca cgaatttgac tgaactccat ctcatgtcca actcaatcca 480
 gaaaattaaa aataatccct ttgtcaagca gaagaattta atcacattag atccactcga 540
 g 541

<210> 1108

<211> 950

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (316)

<220>

<221> unsure

<222> (412)

<220>

<221> unsure

<222> (431)

<220>

<221> unsure

<222> (463)

<220>

<221> unsure

<222> (492)

<400> 1108

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 catgcctagt tactatgctc catccattgg atttccatat tctcttgggg aagcagcgtg 180
 gtccacagct ggagaccagc ctatgccata tctgacaacc tatggacaaa tgagtaatgg 240
 agaacatcac tatataccag atggtgtatt tagtcaacct ggggcattag gaaatacccc 300
 tccattttctt ggtcancatg gatttaacct ttttcttggg aatgctgatt tctctacatg 360

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ggggacaagt ggatctcagg gacaatcaac acaaagttct gcttatagta gnagttatgg 420
ctatccacct ngttctcttg ggagagctat tactgatgga cangetggga ttgggcaatg 480
atacttttag ttaggtgcct ggcatagca gtattgagca aggcattgact ggactgaaaa 540
ttggtggtga cctgacagct gcagtgacaa aaactgtagg tacagctttg agcagcagtg 600
gtatgactag cattgcaacc aatagtgtgc ccccgattag cagtgcagca cctaaaccaa 660
cctcctgggc tgcattgcc agaaagcctg ccaaacctca accgaaactt aaacccaagg 720
gcaatgtggg aattgggggt tctgctgtac caccacctcc tataaaacac aacatgaata 780
ttggaacttg gtagaaaaa gggtcagtgg taaaggctcc accaacccaa ccagttctgc 840
ctcctcaaac tataatccag cagcctcagc cattaattca accaccacca ttggtgcaaa 900
gccaactgcc tcaacagcag cctcaaccac cacaaccaca tcagctcgag 950

```

<210> 1109

<211> 627

<212> DNA

<213> Homo sapiens

<400> 1109

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gaattcggcc aaagaggcct acaggggaaa agtaagctcc tccaaagttg cttgcagtgc 60
tggaataaga tctcattttt aggttttctc ttctgtccag ataccataa aatgggacag 120
agaataaaat ttttgttaaa atatgtgttc atctcctaag tagctcttca gagtctgacc 180
gtaagtataa acacacagaa ttgtgttgac tgggggaggt gaatcacaaa aaagttacga 240
ggagttttaag agttaaatat tatttgatcg tggctgtcaa atttagtgaa caacatagat 300
tggattttgga gttggtagta ggtatgggtc tcataccaga attctcttaa aaaaaaaaaa 360
aaaggacaat tggaaattgcc ttattttatt ttaaaatcaa tgcttactag ttggtaggat 420
tcccaggcca gcagcagggt tgattcaata atcttgacaa tgagcagctg ccattctggg 480
ggatttcatt ctgtggcttt ttaaattgtt cgtctttgat gctaccatcc agggcttctt 540
attgtgacct tgtagcctat ttgttctctg ctgttctcta acatggtgca gttcacgcag 600
actgggttag gtacttcccc actcgag 627

```

<210> 1110

<211> 844

<212> DNA

<213> Homo sapiens

<400> 1110

```

gaattcggcc aaagaggcct agatcgagca tcataaagca agctctgctt tagtttccaa 60
gaagattaca aagaatttag agatgtattt gtcaagattc ctgtcgattc atgccctttg 120
ggttacgggt tcttcagtga tgcagcccta ccttttggtt tggggacatt atgatttggg 180
taagactcag atttacacgg aagaagggaa agtttggtat tacatggcct gccagccgga 240
atccacggac atgacaaaat atctgaaagt gaaactcgat cctccggata ttacctgtgg 300
agacctcct gagacgttct gtgcaatggg caatccctac atgtgcaata atgagtgtga 360
tgcgagtacc cctgagctgg cacacccccc tgagctgatg tttagatttg aaggaagaca 420
tccctccaca ttttggcagt ctgccacttg gaaggagtat cccaagcctc tccagggtta 480
catcactctg tcttgagca aaaccattga gctaacagac aacatagtta ttacctttga 540
atctgggcgt ccagaccaa tgatcctgga gaagtctctc gattatggac gaacatggca 600
gccctatcag tattatgcc aagactgctt agatgctttt cacatggatc ctaaatccgt 660
gaaggattta tcacagcata cggctcttag aatcatttgc acagaagagt actcaacagg 720
gtatacaaca aatagcaaaa taatccactt tgaatcaaaa gacagggtcg cgttttttgc 780
tggacctcgc ctacgcaata tggcttccct ctacggacag ctggatacaa ccaagaaact 840
cgag 844

```

<210> 1111

<211> 832

<212> DNA

<213> Homo sapiens

<400> 1111

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gaattcggcc aaagaggcct agttgtgtcc ttcagcaaaa cagtggattt aaatctcctt 60
gcacaagctt gagagcaaca caatctatca ggaagaaaag aaagaaaaaa accgaacctg 120
acaaaaaaga agaaaaagaa gaagaaaaaa aatcatgaaa accatccagc caaaaaatgca 180

```

```

caattctatc tcttgggcaa tcttcacggg gctggctgct ctgtgtctct tccaaggagt 240
gcccgtgctc agcggagatg ccacctcccc caaagctatg gacaacgtga cgggtccggca 300
gggggagagc gccaccctca ggtgcactat tgacaaccgg gtcaccggg tggcctggct 360
aaaccgcagc accatcctct atgctgggaa tgacaagtgg tgcctggatc ctcgctgggt 420
ccttctgagc aacacccaaa cgcagtacag catcgagatc cagaacgtgg atgtgtatga 480
cgagggccct tacacctgct cgggtgcagc agacaaccac ccaaagacct ctagggtcca 540
cctcattgtg caagtatctc ccaaaattgt agagatttct tcagatatct ccattaatga 600
aggggaacaat attagcctca cctgcatagc aattggtaga ccagagccca cgggttacttg 660
gagacacatc tctcccaaag cgggtggctt tgtgagtga gacgaatact tggaaattca 720
gggcatcacc cgggagcagt caggggacta cgagtgcagt gcctccaatg acgtggccgc 780
gcccgtggtg cggagagtaa aggtcacctg gaactatcca ccatacctcg ag 832

```

<210> 1112

<211> 466

<212> DNA

<213> Homo sapiens

<400> 1112

```

gatggagccc agcaccgcgg cccgggcttg ggcctctttt tggttgctgc tgcccttgct 60
tggcgcggtt tgcgccagcg gaccccgcac cttagtgctg ctggacaacc tcaacgtgct 120
ggagactcat tcgcttttct tccggagcct gaaggaccgg ggctttgagc tcacattcaa 180
gaccgctgat gaccccgacc tgtctctcat aaagtatggg gaattcctct atgacaatct 240
catcattttc tcccccttcg tagaagattt tggaggcaac atcaacgtgg agaccatcag 300
tgcttttatt gacggcggag gcagtgtgct ggtagctgcc agctccgaca ttggtgaccc 360
tcttcgagag ctgggcagtg agtgcgggat tgagtgtgac gaggagaaaa cggctgtcat 420
tgaccatcac aactatgaca tctcagacct tggccagcaa ctcgag 466

```

<210> 1113

<211> 668

<212> DNA

<213> Homo sapiens

<400> 1113

```

gaattcggcc aaagaggcct aagcagagca gaatgcaggg gttactgtgt tgaacaaaag 60
gcacacatca gagagacagt tgcaaaacta gaatactgct ttatgggcaa aactaactgg 120
tccacaagag aaaatgagag actcgatttg gctgccagga acacctgggc ctaggcaaga 180
acacaagagg tttctggggg tggggaggaa ataggtctcg ctgaagggtga cagatccctt 240
ggggggcgcc cagctgtctg gatcactgtc cagggactgt ggccagccca gatactccg 300
agggtgagtc agatcactag gacgagcagt ctgtcgggtg gatgcgatgg atggcgatgg 360
ctgtggcagc gcagggtctg gggcagaatg atgtagtcgt ctggcagtcct ggtggggagg 420
agagggcttg gcagcggcgg cagtgggtgg tctgtccagt gtgtaacagg agcccagctt 480
gcagctggag cgaggacag cgtccaaatg tacatgggag gggctggctg gctggaagga 540
gagggcgccg gctcgtctca gagttagggc caggggcggc agcaggagcc tggagcgcta 600
ttcctggaac aaaggcaagc actacgcggg agggaaacagg agcgagggg acatcgccgc 660
ggctcgag 668

```

<210> 1114

<211> 395

<212> DNA

<213> Homo sapiens

<400> 1114

```

gaattcggcc aaagaggcct agttgaatgt atatatcaag gcttaaaatc ctcatcttgg 60
ttgcaacaga atagttgtta taagtttatg atttgggagc caatgaaaat agtgtcattt 120
ttccccgtga gaataaaagc tcaaggtagt gtcaagtctt cagaaagtaa acttagcaca 180
gtgggtctca aactctgcag tgcgttaaaa ctacagattt ttggggcctg gccccaagat 240
tctgcccacg taggtctggt gggtagccca gggatgtttg ttttaaaaca gcactgcagg 300
tgattttttt tgtttttact tttatttttt tcttgagcaa ctttgagtcg aaagcagatg 360
atttttagta aatgatttat gcactacagc tcgag 395

```

<210> 1115
 <211> 658
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (461)

<220>
 <221> unsure
 <222> (573)

<220>
 <221> unsure
 <222> (578)

<220>
 <221> unsure
 <222> (590)

<400> 1115
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 tctttcaatg aaatataact gcccatattt tttaaaaaag cctccgcctc ctaaactctg 120
 gctcaattct gctgacctga tatattactt tagatttaga gaatcccaag ggatagctct 180
 ctggatatta tgrtaattaa tagtctttgc cccctctcct ctctctattag gtaggaaaac 240
 attttctaga gaatagaaag aagtcctctc ataacctggg gttttccctt ctcgggttatg 300
 tattagataa ttagataaat tggaccttat aatctatctg ttaagttcct gttataccta 360
 gattatatct tgggtctctt gcttgaatct caacatcaca ttttgtcca tttaaagtcc 420
 tttcaaactg agctcttttg caaacagctt cctatgcagg naaccagagt tatttactag 480
 gtctttaaca tgaatcccca aattttattt tagatgatac tgaatttttg tgcctttgcg 540
 aaagtcatgt taaatatgtt aaaaccatac cgnaaagntt aacacacacn tacacaaaaa 600
 aaaaaaccat actaaaaaaa atacccaaag aaaaactcat aataccaggg cactcgag 658

<210> 1116
 <211> 559
 <212> DNA
 <213> Homo sapiens

<400> 1116
 gaattcggcc aaagaggcct atagacctgt ctcgaggcag gtctagaatt caatcgacgc 60
 cgccatgggt aacctgttctg gccgcaagaa gcagagccgc gtcacggagc aggacaaggc 120
 catcctgcaa ctgaagcagc agcgggacaa gctgaggcag taccagaaga ggatcgccca 180
 gcagctggag cgcgagcgcg ccctggcccc gcagctgctg cgggacggca ggaaggaaac 240
 ggccaagctg ctgctcaaga agaagcgata ccaggagcag ctcttggaac ggacggagaa 300
 ccagatcagc agcctggagg ccatggttca gagtattgag ttcacccaga tcgaaatgaa 360
 agtgatggag gggctgcagt ttggaaatga gtgtctgaac aagatgcacc aggtgatgtc 420
 cattgaagag gtggagagga tcctggacga gacgcaggag gccgtggagt accagcggca 480
 aatagacgag ctcttgagcag gaagcttcac tcaggaggat gaagacgcca tcctggagga 540
 gctgagcgca acactcgag 559

<210> 1117
 <211> 486
 <212> DNA
 <213> Homo sapiens

<400> 1117
 gaattcgcgg ccgcgtcgac aaatctactg tctgtcactt ggatgttgat gtggctatag 60
 ttagttcatg tttgttaaat gactacaact gggaaattat gtctactgtc cttttgtaca 120
 agttcaaaa atgacagcca cccatctaaa aatcctgagg cctatagaag atgcatgagg 180

```

agtcctctgtc tccagggttta ccacttatgc ttcttattag gatggcttgt tatacatagc 240
acttaaatagt agttttcttct cttttctctt ttgcatatag gatcacagtc accttctata 300
tagcaccatc cccaggatgc aggagccggg gcagattgtg gagacctaca cggaggagga 360
tcctgagggg gccatgtctg tagtctctgt ggagacctca gatgatggga ccactcggcg 420
cacagagacc acgggtcaaga aagtagtgaa gactgtgaca acacggacag tacagccgtc 480
ctcgag 486

```

```

<210> 1118
<211> 903
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> unsure
<222> (325)

```

```

<220>
<221> unsure
<222> (334)

```

```

<220>
<221> unsure
<222> (345)

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```

<400> 1118
gaattcggcc aaagaggcct aggccttcgat gttagccggg acccgactca gatcgatgct 60
atagaagaca aacaagggaa gggttttttt ccttttgcac catggctcaa tttggaggac 120
agaagaatcc gccatgggct actcagttta cagccactgc agtatcacag ccagctgcac 180
tggtgtttca acagccatca ctcccttgag catctcctac catttataca cagcaaaactg 240
cattggcagc agcaggcctt accacacaaa ctccagcaaa ctatcagtta acacaaactg 300
ctgcattgca gcaacaagcc gcagntgcag cagntgcatt acaancagca atattcaca 360
cctcagcagg ccctgtatag tgtgcaacaa cagttacagc aacccagca aacctctta 420
acacagccag ctggtgcact gcctacaagc cttagcctgt ctactcctca gccaacagca 480
caaataactg tatcatatcc aacaccaagg tccagtcaac agcaaaccga gccacagaag 540
cagcgtgttt tcacaggggt gggtacaaaa ctacatgata catttggatt tgtggatgaa 600
gatgtattct ttcagcttag tgctgtcaaa gggaaaacc cccaagtagg tgacagagta 660
ttggttgaag ctacttataa tcctaataatg ccttttaaat ggaatgcaca gagaattcaa 720
acactaccaa atcagaatca gtcgcaaac cagccattac tgaagactcc tcctgctgta 780
cttcagccaa ttgcaccaca gacaacattt ggtgttcaga ctacgcccc gccccagtc 840
ctgctgcagg cacagatttc agcagcttct attacaccac tattgcagac tcaaccactc 900
gag 903

```

```

<210> 1119
<211> 1018
<212> DNA
<213> Homo sapiens

```

```

<400> 1119
gaattcggcc aaagaggcct actgacttct ggtcttggag aaaatgcttg tgtaaagaaa 60
agtcattgaaa agtaccttat agcttttaaag agctctggac ttacatatcc tgaggataag 120
cttgatatag gtgtgcagga gccatctgct ggtactagtt ctctggctgt tcaaggtttc 180
ataggcgcaa caggaaacttt gggacaagtg gattcttcag atgaggatga tcaggatggt 240
agtcaagggtc tgggcaagag aaaaagggtg aaactaagca gtggcaccaa agatcaatcc 300
ataatggatg ttttgaagca taaaagcttc ctagaagaac tattattttg gactataaaa 360
tatgaattcc ctcaaaagat ggtaactttt ttactcaaca tgcttccaga tcaagagtat 420
aagggttgctt ttacaaaaac ttttgttcag cattatgctt tcattatgaa aacactgaag 480
aaaagtcattg aatcagacac aatgtctaac agaattgtgc atattagtgt tcagttgttc 540
agcaatgagg agctagccag acaggtaaca gaagaatgtc agctgctgga tattatggtc 600
actgtgctat tatacatgat ggaaagtgtc cttattaaaa gtgagctaca agatgaagaa 660
aatagtttac atgtggtagt gaactgtgga gaagcattac tgaagaataa cacttactgg 720

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cctcttggtta gtgattttat taatattctt tctcatcaaa gtgtggccaa gagatttttg 780
gaggatcacg gtttggttagt tacatggatg aactttgtat ctttctttca aggtatgaac 840
ttaaacaagc gagaactaaa cgagcatgtg gaatttgagt ctcagacctt ctatgctgcc 900
tttgctgctg aacttgaggc ctgtgcacag ccaatgtggg ggctttttatc acattgtaaa 960
gttagggaaa ctcaagagta taccgaaat gttgttagat attgccttat agctcgag 1018

```

```

<210> 1120
<211> 452
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> unsure
<222> (65)

```

```

<220>
<221> unsure
<222> (71)

```

```

<220>
<221> unsure
<222> (348)

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```

<220>
<221> unsure
<222> (387)

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<220>
<221> unsure
<222> (440)..(441)

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<400> 1120
gaattcggcc aaagaggcct agagggcact tctaaacatc tagatagtct aaatgtttca 60
agtangggagt naatttggtcc actatgtatg tacacagcag tctcgaataa actgcaaaca 120
tgtaacaaca gttataatctt gaaagagtct tccaaatgtg aacattcttg cctagaaccc 180
ttcccatctc catcaacca gtgggcaaga atgctcaaat tttcagaaga cagtctttcc 240
taggacttgt aaaacaaaat gtacaaaata tattagttta ctaactctag ttttgttata 300
cactggcaac ctctttaaca tccagaaaaga ctagatgttg taaattanga ctctgtttgc 360
ctttatgtac attatataca tagatanaac aaaatgcaca gacatagtga ttcattcttc 420
ctcgctgtaa gcaggatggg ntaaaagctcg ag 452

```

```

<210> 1121
<211> 427
<212> DNA
<213> Homo sapiens

```

```

<400> 1121
gaattcggcc aaagaggcct actcacctat cacttcaaag gggtaaaaat actcttctgc 60
tcaaactgta ttcagtctct cgtgtcaatg gaaaatgggtg tgttacagat agaaaattct 120
aaagaagatc tcacatttca aaattaatac ctaattttac tcagtaatta cattttattt 180
caaacatatt cccttacaat tagtcttgaa tttgaatcta agtttcataa cttctgggta 240
agatgaccat ttagtaaaact gcctaccaat tttagtttac ttatctgtta agcaccatag 300
tatttatgat ctatataaga ttgtaatgaa aactacattt ttgtaaaaca ccatacatag 360
tgctcagtat gttcttccct cctgccattt cttatatttc ttgattaata cctttaaata 420
actcgag 427

```

```

<210> 1122
<211> 453
<212> DNA
<213> Homo sapiens

```

<400> 1122
 gaattcggcc aaagaggcct atccagggtta aggtatccag cctttatcat ataagcattg 60
 acattatcca ggcctagtca gtagcagtag ggtaacggga ttgaaaaaga tttgatggag 120
 aggaaagtat ctaatatattg tcatgggtttt gacctaaatt gctagacagt cgtgccattc 180
 acaaagtcag aaaatacagc aggaagagac agctttttaga ggggcagaga attagaggat 240
 ggtggttagta atgaaaatga tgcattcagt ttaacaagtt taatttgaga cagctatggg 300
 atagctaaaa acaaaagccc ataaagttgg agatagggac cagagtttaa catagcgatc 360
 taggccagaa ttgacaatgt ttaagtaatg gtggaatctg tcaataagac ttcccagagt 420
 gttaatatat atcagaaatg cacccaactc gag 453

<210> 1123
 <211> 709
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (22)

<400> 1123
 gaattcggcc aaagaggcct anccgtagat gatgttccct tctcaatecc tgctgcctct 60
 gaaattgccc accttagtaa catcatcaat aaactactaa aggacaaaaa tgagttccac 120
 aaacatgtgg agtttgattt ccttattaag ggccagtttc tgcgaatgcc cttggacaaa 180
 cacatggaaa tggagaacat ctcatcagaa gaagttgtgg aaatagaata cgtggagaag 240
 tatactgcac cccagccaga gcaatgcattg ttccatgatg actggatcag ttcaattaaa 300
 ggggcagagg aatggatcct gactggttct tatgataaga cttctcggat ctggctcctg 360
 gaaggaaagt caataatgac aattgtggga catacggatg ttgtaaaaga tgtggcctgg 420
 gtgaaaaaag atagtgtgtc ctgcttatta ttgagtgcct ctatggatca gactattctc 480
 ctatgggagt ggaatgtaga gagaaacaaa gtgaaagccc tacactgctg tagaggatcat 540
 gctggaagtg tagattctat agctgttgat ggctcaggaa ctaaattttg cagtggctcc 600
 tgggataaga tgctaagat ctggtctaca gtccctacag atgaagaaga tgaaatggag 660
 gagtccacaa atcgaccaag aaagaaacag aagacagaac aggtctcgag 709

<210> 1124
 <211> 135
 <212> DNA
 <213> Homo sapiens

<400> 1124
 gaattcggcc aaagaggcct agtgggggga ttgcaaatga aggaactttt tacatggatc 60
 tttttaatct cagtgtgttg ggggaggggg gtacttggtt cttgggtcac acaagctcta 120
 tcccacatc tcgag 135

<210> 1125
 <211> 899
 <212> DNA
 <213> Homo sapiens

<400> 1125
 gaattcggcc aaagaggcct atcagatttc tagcaaaatt gaacagaaag tatagagtgt 60
 acattctgta tctcctgacc ccgtacatgc acagcctccc ccactatcag cgtcctcccc 120
 cagagtggat ttgttaaaat tgaagaccct aactgatcac agcatcatca cccaaagtcc 180
 atagttttca tttagagttaa ttctgtgtgt tgtgcattct atcagtttga caaatatgta 240
 atcacatgca tctgccatta tagtgccata cagaatagtt ttactattct aaaatcctct 300
 gtgccccacc tattcatctc ttctctctc ttaacccctg gcaccactgg tcttttact 360
 atcttcatag ttttaccctt tccagaatgt cttatagtta gaatcatata gtagttagcc 420
 ttttcagatt ggcttctttg atttagtaat aagcatttat gtttcttcca tgtcttttca 480
 tggcttgata gctcatttct ttttagtgct gaataataat ttattgtttg catataccaa 540
 agtttatcca ttcacctact gagggatcac ttgattgctt caaagtttcg gcaattatga 600
 ataaagcttc tgtaaagatt catatgcaga tttctgtgtg aacacaagtt ttcaaccat 660

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ttgggtaaat accaatgaga gtgatagcta gatcattgtg gaaagctttt aaaccacaaa 720
tttagtttct ctaactattc agtttatctg tttctttttt agtgagtttt gggtgtgttt 780
ttcattgagc ctgtgcattt tatctgagtt gttaaattta tttccatgaa gttgttcata 840
atattccctt ttattctttt taatatctat aggatctgtc atgatgtccc gagctcgag 899

```

<210> 1126

<211> 447

<212> DNA

<213> Homo sapiens

<400> 1126

```

gaattcggcc aaagaggcct agggaggatc atagctgggg gaggtgagc gtgggagcgg 60
tgctgccagt cctgcctgaa aacgcgaaat gagtcttgct tggttctccc tccactgggc 120
gtgagagccc ctgcccagga ggcccaggac aaatggcccc atagtggaaa ctgggaagct 180
tttaggcata tgatcagagc gggagccagc cgggggacca cagtgtctga caggccaacc 240
aactcaaaact tgaagacatg aaatcccca ggagaaccac tttgtgcctc atgtttattg 300
tgattttattc ttccaaagct gcactgaact ggaattacga gtctactatt catcctttgg 360
aaaaaaaccc tgaagctcag cgaggataag taacttcccc aaggtcacaa agccacagaa 420
gtcttcatga acatgaacca gctcgag 447

```

<210> 1127

<211> 449

<212> DNA

<213> Homo sapiens

<400> 1127

```

gaattcggcc aaagaggcct aaacttcgta aaaagctaaa ggcagaaaag aagaaattag 60
ctgtctttat gtcttcccg caaagcagaa cagttcgaa tgaaaatcta gaacaggtgc 120
cccaggatgg gtctccaaat gattgtgaat caatagagga cttgttaaat gagctaccat 180
atccaattga tattgccaat gagtctgcat gcaccactgt tcctggtgtt tcctgttaca 240
gtagtcaaac tcatgaagaa atttttagcg aattattgtc tcctacacct gtttcaacag 300
agctgtcaga aaatggggaa ggtgacttta ggtatttggg aatgggagat agtcatatcc 360
caccaccagt accaagtcaa ttcaatgatg tttcccagaa cacacatctg agacaggacc 420
ataattattg tagccccacc ggactcgag 449

```

<210> 1128

<211> 278

<212> DNA

<213> Homo sapiens

<400> 1128

```

gaattcgggc caaagaggcc taagattaac tatactattt tcaagggcaa atagttatcc 60
tttatgacat ttctgttttc ctaacacctt acagaaatgt gctcttccat ggaatagata 120
tttaatacat tatttatttg taacattttt agttattttt taaaaaatag atgatttatt 180
tacaagtcag gaaatcctag taaaaatgct cccatccttg tcttcaatct actactcagt 240
ttctaattgct cctctgtag ataaccactg tactcgag 278

```

<210> 1129

<211> 305

<212> DNA

<213> Homo sapiens

<400> 1129

```

gaattcggcc aaagaggcct acacatttgg ggccacacac tatgtccatc ttccctcttt 60
tggtgatgtt aatttatcac ccaatcaaga tataagtcca tttctccacc gtgtaattgc 120
tggtttattt ttctgttgca actaacaagc agtctgtgac aagatagttc aagaccatct 180
tagcatccag ctgcagacct acctttgact ctagtataat agatggccac ctgtttgcat 240
gatttcagga gcacaagaaa ggcacaaagc ttctggaata aagatatatc cctcttcccc 300
tcgag 305

```

<210> 1130

<211> 385

<212> DNA

<213> Homo sapiens

<400> 1130

```

gaattcggcc aaagaggcct atccaaggac caccacccgc caccgcccgc cgagcgtact 60
attcgggccg cccctctgctg cgcctgaaga gagaggcgac tctacaagcc tcacagcatg 120
cactgttact aaaaagacga tgcgtcctcc tggacctgag atctgtgtga tcgtgggaaa 180
gcgacgaaaa acgaacaaaag gaacagtaaa tggagtaact tggctagaat atggcagtaa 240
ctacaaggca tgttctgctc tggcacgaag acaaccacc tgaggcacca gacacatgag 300
tgaagccatc ttggacatcc cagtcacagc caaactcact cctgagtga tctgcatgat 360
gaaccacgca atcccactc tcgag                                     385

```

<210> 1131

<211> 337

<212> DNA

<213> Homo sapiens

<400> 1131

```

gaattcggcc aaagaggcct aaaagcaggg actaaaagcc ccacttcgtc ttacgttccg 60
aaaggaagcc gtctgttgag cctttctctc agtcgtgagg gaggcgtcga cggcgtgcgg 120
aagtcctgag ttgaggcttg cgggatcctt tccggagaaa gcgcaggcta aagccgcagg 180
tgaagatgtc caactacgtg aacgacaagt ggccgggctc gccgcaggag aaggattcgc 240
cctcgacctc gcggtcgggc gggtcacgcc ggctgtcgtc gcggtctagg agccgctctt 300
tttcacagaag ctctcggtcc cattcccgcg tctcgag                                     337

```

<210> 1132

<211> 459

<212> DNA

<213> Homo sapiens

<400> 1132

```

gaattcggcc aaagaggcct aaggaggggc aggagaacac actgggtcca tgctgggtgt 60
gggcaggagc acctttccag cattaggggt gctgggatcc acataggcct gcatgggata 120
acctgggtgg taaccagcaa agggatgatg cggggcatta taaccaagag agtcataggg 180
cagtgggtgat gtcatccca ggttctgcat ctgttgctgt tgtttctgag cctcccgttg 240
agccacctct tgctcaaaac acttccggcg ttccctctgta gaaagtatat tgcgggtctt 300
aattcgtagt ttctttttag aagttgggtg atcatatctg tcatctggcc tttttgttcc 360
ccgtcatag gcagaagagg gtgggtgagag ggagcttctt cgtttccctt tctctttatt 420
ttgagtttgc ttgtctgggt ctctctctct tccctcgag                                     459

```

<210> 1133

<211> 681

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (154)

<400> 1133

```

gaattcggcc aaagaggcct aggccaggga agctatgttg aggagggacc cccccaccac 60
atttccagca gtggagggt gatcatttcc cactctgggc agtgggggtgc tgggcatctg 120
tgggcaccca tggaccaagg agctctgccc caanctttgc ttggcccag gccctatgaa 180
gaagccttga gccctgccag accacctgcc tggttccctg cagtcttccc ccaagcactc 240
cttgctaagg cagtcccctc cttgataacc cagcccctgc tttcccaagg aagtagcctg 300
ccccagatga ccccggtctc ctcagggcct gggggaaaa gctgaagaca gtgccacgag 360
gccactctgc caggcgtctc tcccctgcat tccccagccc tcccaggctc agccccagag 420
agttgtttcc accaggggcc tcctggtcct caggcccctc ctgtgtcctg cgaagggcct 480

```

```

gtcctggaga cagcctgtgc cctccgtcac cacagcctta ggctcaggcc accaggatgt 540
ttctttggcc tctggcagcc ccagctgggg tgcccttagt ccaccaaca catgcacaac 600
acacatgtac tcaacacaca catctacata taccacacac atgtacacaa tacgtacact 660
caatatacaa cacacctga g                                     681

```

<210> 1134

<211> 299

<212> DNA

<213> Homo sapiens

<400> 1134

```

gaattcggcc aaagaggcct aggtgggtgt agcagctgaa ggatcttctg tgaggctaac 60
tgctttccaa ctctcttgtt cttacaccac ccgcgcactg tgtgcttgcc acacgccatg 120
acgtattcac tcttctgggt tttcccagga accacttcaa acttgataga cgtgtcacc 180
atcccatggg ttcttttaag gcaactcgtg aggatctgat atggagacaa cagcccagcc 240
ttgctgggtca gctcgtagac ccgcgagtc tcatgctga tgtggttaaa atactcga 299

```

<210> 1135

<211> 606

<212> DNA

<213> Homo sapiens

<400> 1135

```

gaattcggcc aaagaggcct cctaaaccgt cgattgaatt ctagacctgc ctcgagcggc 60
taagtgatgg atcttgtact ccgtgttgca gattactatt tttttacacc atacgtgtat 120
ccagccacat ggccagaaga tgacatcttc cgacaagcta ttagtcttct gattgtaaca 180
aatgttggtg cttacatcct ttatttcttc tgtgcaacac tgagctatta tttgtcttc 240
gatcatgcat taatgaaaca tccacaattt ttaaagaatc aagtccgtcg agagattaag 300
tttactgtcc aggcattgcc atggataagt attcttactg ttgcaactgt cttgctggag 360
ataagagggt acagcaaatt acatgatgac ctaggagagt ttccatattg attgtttgaa 420
cttgtcgtta gtataatata tttctctctt ttcactgaca tgttcatcta ctggattcac 480
agaggccttc atcatagact ggtatataag cgcctacata aacctcacca catttgaag 540
attcttactc catttgcaag tcatgctttt caccctattg atggctttct tcagagtcta 600
ctcgag                                     606

```

<210> 1136

<211> 469

<212> DNA

<213> Homo sapiens

<400> 1136

```

gaattcggcc aaagaggcct agctaggtgg tggcagccag tggctggtcc ttgggcagga 60
gatccttgtc actggtatct ttatctctgg taggactgga ataggggctg gggcaggtga 120
cctggctgaa tgtggaaaag aggactgtgt acagaggtca ccctgtggc tagctgagaa 180
gagtggaaag gagaggtgaa gtgctaaaac tggggctggg gagaagcctc aggtatggag 240
gaggatgggg cctctgcgaa gatgtggtgg ttaacagcca tgaggcttta gagctggaga 300
gaccctgctt cctgaatggg gtcttgggca gctccctcc ctgctccgag cctcaatttc 360
cccatttgta aaatagggag gatgctccct acttcataag gctgcttggt gggcagaaag 420
ataaacaggg tcggggcccc tccaagcggc tgggcgaagt gaactcgag 469

```

<210> 1137

<211> 113

<212> DNA

<213> Homo sapiens

<400> 1137

```

gaattcggcc aaagaggcct acagctacct ttatcctcat ctcccaccgt ctctttctt 60
atctggcttt ttctagtttc caactccttt catgaagcat gtccccgctc gag 113

```

<210> 1138

<211> 575
 <212> DNA
 <213> Homo sapiens

<400> 1138
 gaattcggcc aaagaggcct acccagagtg acggcatgtg gaggcgtcaa tgcattctacc 60
 tccagcacac caggcatgat gtcagggtgca gcaggaggta cctggccctt tgctacacag 120
 accacatggt cttgctgggg acaagacctt ggggaacagct ctttttggtt cagtgtggtt 180
 gggttcctgga gagggagagg gaatagccca cgggctaagc agccactgc aggtacctaa 240
 tgcaaccagg aaggtcaggg aaggagatgg ccagccacgc ggtggagttt gaacatcatg 300
 tagcagtttag ccaggtgaag aggagatgct ggggagacag ggagaggcca ctccctggctg 360
 agggacctgt acctgcaaag actctcaggg gaggaggacg gctttctgtc actgtttctg 420
 tgtgtgaggg aaatcagagg gtagggcccg ctgtccctg cctttcctgt ggggcctgac 480
 tgcacgtacc cctctcccc aaacctcca ggagttctga gtctctacct ggatcttgat 540
 tccactggca tgaaatctgt gaatctcacc tcgag 575

<210> 1139
 <211> 113
 <212> DNA
 <213> Homo sapiens

<400> 1139
 gaattcggcc aaagaggcct actagaatat taaatatact cagtaaattc tgtgacctt 60
 gcaaaggcca aataaatttc aaatagttat ttcaaaaaat gggcactctc gag 113

<210> 1140
 <211> 108
 <212> DNA
 <213> Homo sapiens

<400> 1140
 gaattcggcc aaagaggcct agttgttggg agtgggtggg gtagtggtat gtgtgtgttt 60
 gtgttggaac tgctaagaaa cacacacaca cacacacag gactcgag 108

<210> 1141
 <211> 236
 <212> DNA
 <213> Homo sapiens

<400> 1141
 gaattcggcc aaagaggcct acgttttctt agtttaaaaa acaagtgaac agagacatta 60
 tttgtgttct cactaaattg catttttgca ttccatcaa ggcagctagc ttgacagaat 120
 ttactccagg caccgtgcag tgcacattt tatgtttggg gacaccttc aaattactaa 180
 cttatgggag aggtgcagt gctcacgct gtaatcctcc cagcaccatt ctcgag 236

<210> 1142
 <211> 520
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (56)

<400> 1142
 gaattcggcc aaagaggcct ataggcctct ttggccgaat tcggccaaag aggccnagt 60
 aagtggacag gttgaggtgg tctttctatt cgtcattcac tcttatttgc aggttctgtt 120
 tcatgtactt ggacgtcttt tagcctctca cacttgaaa ttctagtgtg aaaaagtga 180
 ctctgaagtc tcacgcactc aactcgtttg acgaactcgt ttgacgtgtt ctctcttgcc 240
 ctttgtgttc tgttgtcttg agtctcatag aataggtttg aacctttcac tgtcgggttt 300

```

gtaggagtca ctgaggatat tgacgaggca agtgacaggg tcgacactct tgtagagagg 360
ctgtatatga accaggtgtc tgaaggatta gaggtctggg aaagagtggg aaagcagtta 420
gtaggctagg gtatttctgc gtgaggtgag gagactcaga gctaggggag acattagagc 480
aggggttggc aaacattttt tgtaaagggc cgtactcgag 520

```

```

<210> 1143
<211> 706
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> unsure
<222> (28)

```

```

<220>
<221> unsure
<222> (396)

```

```

<400> 1143
gaattcggcc aaagaggcct aagatcancg tgcgggggtgt gaagataggg gtcaaggccg 60
atgactccca ggaggccaag gtgacttctt ccaaccacgc ccttctcttc catggcccca 120
agctctcccc caagacttgc gatgaagagg ccatctcctg tcaccctcac tgcaggccag 180
gtgaccgccc tcttgcttct tttctccctc ctgtagggga ataaatgtag ccacttttct 240
cagttaaaaa acatctcttt ctgaggatat catccaaaga acaacaagta agtgggggtg 300
ggatggcagt ggaggaggca cgggtggtct gcagccttga ggtgggtggg tgtgggccga 360
gccccgctcc cagcacagac agacctgtcc ctgcangtac tttgggttca tcaccaagca 420
ccccgcgcag caccggtttg cctgccacgt ctttgtgtct gaagactcca ccaaagccct 480
ggcagagtcc gtggggagag cattccagca gttctacaag cagtttgtgg agtacacctg 540
ccccacagaa gatattctacc tggagtagct gtgcagcccc gccctctgct tccccagcc 600
ctcaggccag tgccaggaca gctggctgct gacaggatgt ggcactgctt gaggaggggc 660
acctgccacc gccagaggac aaggaagtgg gacggccgaa ctcgag 706

```

```

<210> 1144
<211> 290
<212> DNA
<213> Homo sapiens

```

```

<400> 1144
gaattcggcc aaagaggcct acgagaatgt ggggcacgaa ggttgagctt ggtgatgtgg 60
tgactataat aaccttctgt gttgttgtgt ttgttgtctg tgttgatggt ttagtgaagg 120
ttatttttac aggagacatg tgggggtgta aggagtggc aatgctctgc atgatgttc 180
tcatcttggg actaccactc acaggcacag tgatcgtctt tgagactgga acaacggcct 240
ttggaacttc ctttagaaca acaggagagg agctggagag gcagctcgag 290

```

```

<210> 1145
<211> 146
<212> DNA
<213> Homo sapiens

```

```

<400> 1145
gaattcggcc aaagaggcct acgagggtag ggaaataaga actacagaga gctcaagaac 60
aattaggcaa ggagatgaga atgaatatgg aaaatctagt taggaatgaa gatattctac 120
attcagagga agcaacgtcc ctcgag 146

```

```

<210> 1146
<211> 721
<212> DNA
<213> Homo sapiens

```

```

<220>

```

<221> unsure

<222> (9)

<400> 1146

```

gaattcggnc aaagaggcct aggccttttc agggtagcag tttattattt atttccatac 60
tttgtgtttt atcccatcaa tctgtctctt caatttggct tagagttata gaatgttga 120
gctggagaaa ccacattttc tgagaaacat tttatataaa ttctgataac agttgatatga 180
acttctattt cttcaagaat catgataagt tttatcatat aggtcccaag aaaaatctag 240
gtacagtaac aactggagat caggaatatt tttctaaata ttcttgcac tgtactttta 300
taatgagtct tttttcaatt aaagtgaata gcatcaaagc atgatatagatt tttttacctg 360
agaaaatggg cttttcattt atatttgaat aaaaattcaa atttaaaact tcaccataaa 420
agtcagtaat gttgacaact tgtcagcacc tacttcatag attgataccc acactataat 480
ttagaatgtg gaagttaaaa tagtatctac accctgaata ataaataaca tgcactaaag 540
acttttcttt tatggaaact tattagtgtc cttcttaaaa ataaatgaa atgaactttc 600
ctaaagtgtg gtaatatattg tactatctaa gtcacatccc tggccttatg aaatatggc 660
attttctact ggtgtaactt ttattagaag catctcatca taactagtag gatttctcga 720
g

```

<210> 1147

<211> 563

<212> DNA

<213> Homo sapiens

<400> 1147

```

gaattcggcc aaagaggcct agtgtgaagt gggtggcgct ggccgcagat gaccacaccg 60
tgaagctctg ggatctcact gccggcaaga tgatgtctga gttccctggc cacacggggc 120
ctgtcaacgt ggtcgagttt caccccaacg agtacctcct ggctccggc agctctgaca 180
ggacaatccg cttctgggac ctggagaagt tccagggtgg gagctgcac gaaggggagc 240
ctggggcccg caggagcgct ctcttcaacc cagatggctg ctgcctgtac agcggcgtgc 300
aggactcact gcgtgtctac ggctgggaac ctgagcgggt ctttgatgtg gtcctcgtca 360
actggggcaa ggtggccgac ctggccatct gcaatgacca gttgatagg gtaggcctct 420
cccagagcaa cgtctcctcc tacgtgggtg atctgacgcg tgtcaccagg actggcacgg 480
tggcccggga cctgtgacg gaccaccggc ccctggcaca gccactgcc aaccccagcg 540
ccccctccg gcacaatctc gag

```

<210> 1148

<211> 199

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (72)

<400> 1148

```

gaattcggcc aaagaggcct atctatgtaa agtgatactt ctttctgtac aagaaatatt 60
acttctccct cnccccaccc aacaaagaaa aagttaaaaa ccagtattcc ttcaaagtca 120
tggggatacc attggcattt tgaatgggac agttcccttg gcagtggaac tctactgctt 180
atctctggcc caactcgag

```

<210> 1149

<211> 319

<212> DNA

<213> Homo sapiens

<400> 1149

```

gaattcggcc aaagaggcct acattattct tattcttaca ttcatgtgt ctgcatttga 60
ctgctacccc tatgtcattc tcaactcaaa tcatggtttg ttccactccc acatggctac 120
ttagagggca aattcctaaa tactgccaga gaaaaataaga atagagtgc aataatcccc 180
ttttgtttca gctttacata tgtttctgct agtctttgca aatactgtga tgcctataa 240

```

gatggggaaa tagaagttag tgaattttctt tagaatatca gtaagtaaat aattgctttt 300
ccaactgtca acactcgag 319

<210> 1150
<211> 316
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (82)

<400> 1150
gaattcggcc aaagaggcct agccccctac tctcatgttg ctcttttctc tcttctctcg 60
tctttctctt tttatctctt tnatattatct catccagcgg ttggcacaacc tttcttttct 120
tagctctgtg tccgccagcc tcttttgctt ctccgacagc aaagctcttc cagggccacc 180
gtttctctct ctgctattct tttctcacgg agagtgggaag ctctcatggt gcttccagaa 240
gcaattctgt tctctctctt tggggctgag ctcttctctt caatcctggt tccatgatgc 300
agaagaggca ctcgag 316

<210> 1151
<211> 544
<212> DNA
<213> Homo sapiens

<400> 1151
gaattcggcc aaagaggcct acagagtaaa agtgtttatc aaaaagctct ttaaaatatg 60
tatgtctgtt gaactagcag ttccgctttt aggaatctat cctggggcaa aagaaataga 120
tcagtgggtt aagattaagt tataatagca aaggaaaaaa ggactaaact caaatgtgca 180
gcaaaaggag acttactgat aactcacagt tcatctctat aacagcataa tatacagctg 240
ttaaaaatta tgtagcaccg taccaaatgg tatggaaata ggtttggga attgctaaat 300
agataaaaaa tttaaatgaa actaaataat atgttttagca tgattccagt tttgaaaaaa 360
aaaaaacgaat gtacataaaa tgagtagagg aatatacact aaaattatta tggtagttat 420
ctttggatgg taggatttaa atacttttcc ttttttctt gataccatc tgtattttcc 480
aaatctacac taaaaacaag ttttgacaaa aataattcat tctttaagga aaaaagcact 540
cgag 544

<210> 1152
<211> 682
<212> DNA
<213> Homo sapiens

<400> 1152
gaattcggcc aaagaggcct aactggttcc tttattttta tgtttattta tttgggacgg 60
ggtctggctc tgtcaccag gctggagtgc agtgggtgca tcaactgtca ctgcagcatc 120
cacctccag cgtccacca tcttcttggc ctacgctcc ggaacagctg gggtagaggt 180
acgccccagc ccgaacaggt tttcactagg ttgcctgggc tctttcttct tttgtctgtg 240
tttgtttgtt ggttgggttg ttggttggtt ggtttttgtt tgtttgttc gagacggggc 300
tccggctctg ccgccggggg ctgcagtga atggcgcat ctacctcac tgcggccttc 360
tgggctcaag cgatcctccc actgtgccg gcctgaagac agcctttaga gaaagaagca 420
gggggagttc ttccgaggac agacaagatt tctggagttt ggaaagggtg agagactggg 480
tcagcgaaag gaacattccg gtctttatgt tgggatgcaa cgtatagata cagggatgag 540
acccaaaaga gccggcagag gtttgcctc gtgctcgcaa ggcaactgcc ggtggctgat 600
cccgtaaagg atacacatac cttagagcga gcctaaagat gcatccagca tgacgggtgg 660
agccacgatg cttggactcg ag 682

<210> 1153
<211> 163
<212> DNA
<213> Homo sapiens

```

<400> 1153
gaattcggcc aaagaggcct acaaacattc caagattatt atatttttga aatttgsgga 60
ttgttttgaa gttgataaaa tatttcatat tagcaattta ttgagaagtt gaaagaaaaa 120
catgatgctc actttaagaa caagtatagg ccgggcactc gag 163

<210> 1154
<211> 116
<212> DNA
<213> Homo sapiens

<400> 1154
gaattcggcc aaagaggcct agtcattgat actattttaa agaagggatt tcttctctca 60
atttgagagaa catgacatat aagggaaaaa gtctaaatgc ctccacctgc ctcgag 116

<210> 1155
<211> 152
<212> DNA
<213> Homo sapiens

<400> 1155
gaattcggcc aaagtcgagt ttcccttgaa aaataaaaga tattgcaccc atgaaataag 60
aagagatgag gataatgcta ttctctctcc tctttagttt ttgggtttgt tcttttgcct 120
gtttaagaca tacagtttca cgctttctcg ag 152

<210> 1156
<211> 276
<212> DNA
<213> Homo sapiens

<400> 1156
gaattcggcc aaagaggcct agctacgcta aaaaataccg agaagatata tggagtgtgt 60
gtttacactg gaatggaaac caaaatggct ttgaactacc aagggaatc tcagaaacgt 120
tctgctgttg aaaaatctat taatgcttcc ctgattgtat atttatttat cttactgacc 180
aaagctgcag tatgcactac tctaaagtat gtttggcaaa gtaccccata caatgatgaa 240
ccttggtata accaaaagac tcagaatgag ctcgag 276

<210> 1157
<211> 272
<212> DNA
<213> Homo sapiens

<400> 1157
gaattcggcc aaagaggcct aagcgaatct tctgcaggcc cttggcaaac tccatctcca 60
gcgtcgtccg cttctccagg tagctgatga ggtccttcat gtacttgcc atgttcttgg 120
catacagcag tgcggcatcc acgccccct cacagcgtg tagcagcacg tccacctcct 180
cggcgggcag gcagccggcg tcacagtcac ccaggctggg aggcgtgccc tcaactgccc 240
gtccatacag gctttccatg gactggctcg ag 272

<210> 1158
<211> 304
<212> DNA
<213> Homo sapiens

<400> 1158
gaattcggcc aaagaggcct agtttctgag tgcgaagtac caattaaggt gtctttaaatt 60
tggcgcacat agggagagaag gaaacctgag gactagtgtt cctcctgaat gaaggttcag 120
gtcaccagcc ttctgtacac tgcctttggg tttagcagtt ctttgaaaag caaacacttt 180
catgtcctgt ctattcattc agctggctgt gctgtgctgt ggaccagctg tgtggatctc 240
tagcccagct acagcagaat acattttacc agcaaaccta aggatgacaa acacccgact 300
cgag 304

```

<210> 1159

<211> 297

<212> DNA

<213> Homo sapiens

<400> 1159

```
gaattcggcc aaagagccta tttaaacagt caagtaaaat caagctgggt aatcatggca 60
gaaggtggat ttgatccctg tgaatgtgtt tgctctcatg aacatgcaat gagaagactg 120
atcaatctgt tacggcagtc ccagtcctac tgcacagaca cagagtgtct tcaggaatta 180
ccgggaccct ctggtgataa tggcatcagt gttacaatga tcttggtagc ctggatgggt 240
attgcattga tcttgttctt actgagacct cctaattctaa gaggatccac cctcgag 297
```

<210> 1160

<211> 279

<212> DNA

<213> Homo sapiens

<400> 1160

```
gaattcggcc aaagaggcct aataaaattg agcaagtaaa gtttgggttt taattttcct 60
ttgctgaac caagatagga aattacttaa gagttttttt tttttttttt tttttttttt 120
ttaggaatga aaggtcataa gccattagaa atagtggcat tattatgcaa taacaacacc 180
ctagctaacc tgcttttgtc atctgtagca cttacaataa agaattgatga ccttccaacc 240
ctggacacta cctcgataaa gcaaaccaga gatctcgag 279
```

<210> 1161

<211> 258

<212> DNA

<213> Homo sapiens

<400> 1161

```
gaattcggcc aaagaggcct agattgcttg agcccacaag ttggagactt cagtgaagctg 60
ttgatcgctt gccactgcac tacagcctgg ctgacagagc aagatccctgt ctcaaacaga 120
caggcaaaca attaactaga gttggagccc taccttacac cgtgtggaaa cacaaattac 180
aaggagagtc ttagatcaaa gctttaaact ttatagaata aaatataaaa gatgatgact 240
ttgggctggg tcttcgag 258
```

<210> 1162

<211> 452

<212> DNA

<213> Homo sapiens

<400> 1162

```
gaattcggcc aaagaggcct aatacatccc acattttgtt gttataacag ttagtagtta 60
gtattgcttt cataatagga ctccagaatc taaattttac gataatgaca tttcttctgg 120
tcatgacaaa tgtaatatatt tacaatatata aatctacgta gaatccaaag acacacacgg 180
agcagtcctg tctgagaaat aaaaaatcag gacacccatg gcatcgtagt agccccctcg 240
gtccagcagg tggcgaaggg aggtgaggtt tatttattaa atgggaccga gtgggacggg 300
gacggggcag ccctaagggt aggggaagcat tgtcaatttc tggggataga atgagacca 360
ggcatagctg gagtttgaag ctttgaagca aaaatatctg tagaacatct taaacgtgac 420
caaaatatga tgttaaaatc agcaatctcg ag 452
```

<210> 1163

<211> 300

<212> DNA

<213> Homo sapiens

<400> 1163

```
gaattcggcc aaagaggcct agggattttc aggtgttttc atttgggtgat caggactgaa 60
cagagagAAC tcaccatgga gtttgggctg agctggcttt ttcttgtggc tatttttaaa 120
ggtgtccagt gtgagggtgca attgttgagg tctgggggag gggtgtgaca gcctgggggg 180
```

tccctgagac tctcctgga agcctctgga ttcaccttta gtagttatga catgagctgg 240
gtccgccagg ctccaggga ggggctggag tgggtctcag caatcagggg gagcctcgag 300

<210> 1164
<211> 326
<212> DNA
<213> Homo sapiens

<400> 1164
gaattcggcc aaagaggcct atgcttgat aggaataaag acaaagtcac ataaaaaaat 60
ggggaaaatt gaacactact caccatagt cctgagtatt ttaaagagcc ttcgtagagc 120
attcaaaatc gggttaagaaa aatggggaaa aataaaatta cttaattctt aaaaggaaga 180
caagcgtatg ctacaccta tggacttata taatcaggct tgctctagct tatccagaat 240
cagagtacag gccgggcgca gtggctcatg cctgtaatcc cagcacttg cctaaaccgt 300
cgattgaatt ctgacactgc ctcgag 326

<210> 1165
<211> 285
<212> DNA
<213> Homo sapiens

<400> 1165
gaattcggcc aaagaggcct actcctgcac aagaacatga aatacctgtg gttcttcttc 60
ctcctgggtg cagccccag atgggtcttg tcccagggtg ggttacaaca gtggggcgca 120
ggacttttga agccttcgga gaccctgtcc ctacactgcg ctgtctatga taagtcctct 180
agtggttact attggagtgt gtcccgccag tcccccgga aggggctaga gtggatttga 240
gaaatcaatc agagtggaaa caccaactac aaccctctcc tcgag 285

<210> 1166
<211> 279
<212> DNA
<213> Homo sapiens

<400> 1166
gaattcggcc aaagaggcct acataattta accattcccc tgtgttggaa agaaataccc 60
aaaccttttc taataatcag tattgcaatg accattataa caccttcatt tttttttttt 120
tttttttttt taacattttg ttgtatttac ttataggagc ggctgtgtgt ccagtatgtc 180
cgacctctt cctcggttct gggctcgggt ggggggttccc ttggcaaact gcaggccccc 240
ggctgggacg cccctgctgc cagcgccggc agcctcgag 279

<210> 1167
<211> 269
<212> DNA
<213> Homo sapiens

<400> 1167
gaattcggcc aaagaggcct aagcaggcta accgtggaca agagcagggtg gcaggagggg 60
aatgtcttct catgctccgt gatgcatgag gctctgcaca accactacac acagaagagc 120
ctctccctgt ctctgggtaa atgagtgcga gggccggcaa gccccgcct cccgggctct 180
cggggtcgcg cgaggatgct tggcacgtac cccgtctaca tacttcccag gcaccagca 240
tggaataaaa gcaccaccca acactcgag 269

<210> 1168
<211> 267
<212> DNA
<213> Homo sapiens

<400> 1168
gaattcggcc aaagaggcct acggtatttg gctgttgctt accctttgaa gttttttttt 60
ctaaggacaa gaagatttgc actcatggtc agcctgtcca tctggatatt ggaaaccatc 120

ttcaatgctg tcatgttctg ggaagatgaa acagttgttg aatattgca tgccgaaaag 160
 tctaatttta ctttatgcta tgacaaatc ctttagaga aatggcaaat caacctcaac 240
 ttgttcagga cgtgtacgaa gctcgag 267

<210> 1169

<211> 414

<212> DNA

<213> Homo sapiens

<400> 1169

gaattcggcc aaagaggcct aatgccttcc tggaaatctt catttgcttc tattcctatt 60
 gtattatttg ggttcttccc atatttgttt gttcaagatt ctctcatcat taaaaacaaa 120
 taaacaaaaa cctctactta accctcctca tcccattact gctctacttc tcttcttca 180
 taaccaagta ttatctacat gcattgtctt cacatcctgt tattaattcc ccaatgcatt 240
 aaattctggc tcatcgtcct actacttctc gctgccattg aagctcctct ttccagagtc 300
 actggttact tcttatttct gaaatcagta ggaagctttt cagtcccagt cctactggac 360
 ctctcagcag ctctggccaa tgctgaccac tcccccaatc cagaaacact cgag 414

<210> 1170

<211> 372

<212> DNA

<213> Homo sapiens

<400> 1170

gaattcggcc aaagagccta gtgtcttctc cagatgctgc atcagctgct gcacccagag 60
 ctcttttggg tctgcacata gctctgcctg agagcgcttg cggggcaaga acaggatagc 120
 tgggatggag cagcctaagc ttggttctct ctcccgtag ctgcccgaac ccttggcggg 180
 aatcttctct tggctgtact tgaggcaaca gtccctgagcc cctccatcac tgccttgggt 240
 cctggggatg ccaaaggcca gaaccaggat aaggaggctc agagccagt actgagccat 300
 gtctgtggta gagggtgagt aaggaggccag agctgagggt gaggtgggca gctgcaagtt 360
 ggggggtctc ag 372

<210> 1171

<211> 330

<212> DNA

<213> Homo sapiens

<400> 1171

gaattcggcc aaagaggcct agtttttttg tggttttgtt gttgtacatg ttatagttgt 60
 tacaactca acaatacatt actacaatta ttacttttac atcattttaa gaaaaatgaac 120
 aaaggaaagc aaatatatat ttgtagcttt tgttatagta acctatttta tcatttcagg 180
 ttgtttgttt atttttcttg tggattcatt accatctgga gtaattttgt tttctttttc 240
 tttctttttt ttttttttgg agggataaca gggctcttgct ctgttgccca ggctgctgga 300
 gtgcagtgtc atgaatacat ctctctcgag 330

<210> 1172

<211> 356

<212> DNA

<213> Homo sapiens

<400> 1172

gaattcggcc aaagaggcct agtttttttt ttatatattc tggatattaa ttatacgtat 60
 gtttttgcaaa tattttttct atttcataag ttgccttttc actctgttgt ttcctttgtg 120
 gtacagaaat tttaaagttt gatgtagttc tatttgttta tttttgcttt tgttgcttgt 180
 gtttttgtgt catattcaag aaatcatcac caaattcaat gtttaggaagc tttttttatt 240
 tttattttta ttttttaata gagacagggc ctccaggcttg tctcgaaact ctgggctcaa 300
 gtgattctcc taccttggcc tcccaaaagt ctgagattac aggtgtcaag ctccgag 356

<210> 1173

<211> 297

<212> DNA

<213> Homo sapiens

<400> 1173

```
gaattcggcc aaagaggcct ataggcctct ttggccggcc aaagaggcct attcaaattg 60
tgtttttaac ctttttagtat ttcttggtta attttctttt aagggtggatt tgacgtacta 120
aataatacaa attgataaat aggttttttag taacgtactg taaagtgtag gcagagagaa 180
gcattctgta gtcctatagt taggtctctg acgtctggta agcctatgcc cctgaactgt 240
aaacttcacc agtgcttctt agaccgtcct cttgtagaaa caggtaactg cctcgag 297
```

<210> 1174

<211> 259

<212> DNA

<213> Homo sapiens

<400> 1174

```
gaattcggcc aaagaggcct aattttattg caagttaaag tatttcaaaa ttgtttattg 60
gttttgatag agattattct cagcctactt cattatcaag ctatattatt ttattaatgt 120
agtttgatga tcttacagca aagctgaaaag ctgtatcttc aaaatatgtc tatttgacta 180
aaaagaagtt attcaacagg agttattatc tatgaaaaaa atacaacagg aatataaaaa 240
acttgaagag gatctcgag 259
```

<210> 1175

<211> 345

<212> DNA

<213> Homo sapiens

<400> 1175

```
gaattcgcgg ccgcgtcgac gagggggttta tctcctccaa aaaaaaaaaa aagggtgcttt 60
aagtaataat tgagttgcta taaatttggg tataaattca aattttaatt gatttgcatt 120
ttacaaagca cgaagaaaat ttgtcattaa aaaatggtta tacatttcat aaacatttat 180
ttataacat tatacctttc caatgtagct ttttggttgt tccctttttt tgtttgtttg 240
tttgtgacca agtcttgctg tcacccaggc tggagtgcag tgggtgtgtg tcacggctca 300
ctacagcctt cacctcccag gcccaagcaa tcctcccaac tcgag 345
```

<210> 1176

<211> 272

<212> DNA

<213> Homo sapiens

<400> 1176

```
gaattcggcc aaagaggcct agtggttttt ttagaaaaaa atgcttttga gaaatggatt 60
cattacaggg aaattatcaa agtccagttt cccaaagctt ccggattata aacatctaca 120
tattcagttc tatacatgta ataaacatcg tggtcacata actcttgcac tattttttgc 180
tttgaccaa aaaagtagta aacaggatta tatcttttag tcatgtacta aatgacagcg 240
tctcacactc tcagatccag ctgcatctcg ag 272
```

<210> 1177

<211> 218

<212> DNA

<213> Homo sapiens

<400> 1177

```
gaattcggcc aaagaggcct atcgagtggg gtgcagaggg aagctggggc cttgggggtcc 60
ccaggggcat ggggagggaa ataaataata aacaccatgg gggataagga gccaggagga 120
atgggggtgt gaatggggag gtgctcgatg cttatttgtg gcactaaagg tcttgcaaga 180
tgccccctga ctgggggccc gtccatgaa ttctcgag 218
```

<210> 1178

<211> 728

<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (20)

<220>
<221> unsure
<222> (72)

<400> 1178
gaattcggcc aaagaggccn aggtaccact ttttaaagct agctgtgtcg agttaaagaa 60
aaaatcagca gntttttctc ccagaaatgt aattgccaaa cactattcat ccccatctta 120
agttttacaa ggtgatgtaa tcagcttggt gtagtgatgc tggccaaatg gtgctcagca 180
ggtgagaaca aaaaaacccc agatttcagt gaactaatac acagcttgag cgtttccatg 240
tgctaagtgt gcacacctac taaaaaactt tggaaatgga aaataatgta ttagtgcaac 300
agttgatgtg ctcttttggg caaagatata gttttgttcc acaatttgta cttaaaagcg 360
aaagaacatt gaaaacatag acttactggc tgtagcaatg ctggcctgtt aactgataac 420
tagaacttag gttcacgttt atgtaaagtg tgtaaaacct agtagagctt gcatagtcgg 480
cactcagtaa atgttttggt ccttttgccc ctggtaagt ttattttacc atcctccac 540
ctgccattct gactttatta aatcaacatg tggaccagag tgtaaatgag atgttattgc 600
agaagagatt gagaaaattg gtatatcatg cagataacat acaaaatctt tttgtaacgt 660
aaaaaatgca gttttattat tgcttggtgc tcaactgttt aagtgaatat taaagggctt 720
atctcgag 728

<210> 1179
<211> 500
<212> DNA
<213> Homo sapiens

<400> 1179
gaattcggcc aaagaggcct aaaaaagaaa ggaagacaaa aatagaaaga gagcgtaagg 60
gcaatacata gacaatagta ataaatatga tagatattat taacccagggt attttaataa 120
tcattttaac tgtgaatggt cgaaataaac caattaaaag atggagattg tcagagtgc 180
tctaaaaaca aaacccaact gtatattttc cacaagataa ccacttttaa tagaaagact 240
catatagatt aaacgtaaag gaatggagga aaatatacca tgctaacct aataaaaaaga 300
aagcgggaaga atagatgaat ccactgtag agttgaagac ttcaacatct ctctagaaat 360
tgacagatgc agcagccgga aaattggtaa agacataatt gaacttaaca gcaccatccg 420
tcaactggat ataattgaca tctatgaact gcttcattcca gcaatagcag attactaatt 480
cttctcaagc tcaactcgag 500

<210> 1180
<211> 177
<212> DNA
<213> Homo sapiens

<400> 1180
gaattcgcgg ccgcgtcgac agcacatgca tctcccacag cctctgccgc gggtaccatg 60
aagatctctg cagctgccct caccatcacc ctactgcag ccgcctctg caccctcgca 120
cctgcctcac catatggctc ggacaccact cctgtgtgct ttgcctaccc cctcgag 177

<210> 1181
<211> 704
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (26)

```

<400> 1181
gaattcggcc aaagaggcct agaacngagc ttgctgtcta cctatgaact cccatcttgt 60
taccacaaca aagacctaac tagcatttat gacataaagc catttccaaa aatcacagat 120
actaaaaaga cagaagatgt atactggaga cagcagtcac taaaaaccca acccacacct 180
tactgtaaac cagaccactg gattcactat gaaaatctta aatctccccct acgtgatcag 240
tataatatgt gtccagaccc ttgttagcctt agtaaacceta gtgttttaca aaataaaca 300
gacacgggaag ctttcacttt agaacatttt ttaagtaagc cagaagaaga gttgttcttg 360
aatatggaaa acaatgaaga aacaagacct gttcttggtt ggattcctag agctggagt 420
accaaaacct agaccaacct gctggagctt aagaactctt tttcaaaaac tgggtgcaca 480
aagcgtttcc ataaatcaat tctagaagac cataaagacc tcagggataa tgagcattcg 540
gggatgaagc accaattcta tggccataat tcctattatt tctataattg agatactcat 600
tcttcccttc aaaacccagc ctcttgcaag aagctaaaaa atataacaga atttccctcg 660
tattgctgga ttctgttttc tagattaaac cacaaggact cgag 704

```

<210> 1182

<211> 863

<212> DNA

<213> Homo sapiens

```

<400> 1182
gaattcggcc aaagaggcct acctaagacc cccagattta gcagcagcaa ccagtgggga 60
tctgggctac ctgggcacaa gaactcctct aaaaatacaa agccaaaacc aatcccatgt 120
gcacatttca aacatacgat ttgcatctaa atcaagtgat tcttgaattt catcaagcag 180
ctgaaaggcc taaaaatttc aaatatctta cataacagtc tagtgaccaa agctagcttc 240
tcattatata gtccctattgg tttatcctaa gtactcetaac cacatcacct ggtggccctg 300
aaagcgtgtt ttggctgaaa aaaaatgtgac agaggccagc agatgctttg gaaagcagga 360
ctctagatgt gaatttgtgc tcagagctct gtacaaaact ctcaatatga gaaccacaa 420
aagcagagtt agaatagcta catttttagg tccccaataa caaacatata attttgcaa 480
gtgatgggaa agtaatttca aaagaagcaa tggtaacaaga tggctcaatt gatctagccc 540
cacacagact tcagacagca atgcctgatt cagcaaacca ggtaggggtg tgacattctt 600
taaggctgag gagtggcagg agcagcttgc atcagtcatac tggaaacatac actgggtctt 660
caaccatccc tgaacactca gctctgtccc cacaggagga caccaggga tttgtgctga 720
atcctcatca agccttttgg tgcgtgtcct tcctcatata tctgagccct gcagaaacac 780
attcctctgc agctgccacc tgccatgtgt ctgtaccact cttctctgtg tttgcatctg 840
tgggtcttga cacccttctc gag 863

```

<210> 1183

<211> 652

<212> DNA

<213> Homo sapiens

```

<400> 1183
gaattcggcc aaagaggcct actcctggcg atggtggcgc cgttctttgc cctcttcccg 60
gtctgccttg tcataccgcg ggtcccgatc cgttccctg tctcgctctc tctctctgtc 120
taccttgta tagccacgct ctcgatccct gtcagacttg tcgtggcccc ggtctgactt 180
gtcgtggccc ctgcttagtt tctcatggct gcggtccgac ttgtcatggc cctgttccga 240
cttgtcatgg ctccgggtcca acttttcttc agcatctgca ttactgcttc tgagcttctt 300
ggccgatttg gtaaccacgg agttggggtc atgtggggag agccaggata caaggctctg 360
gtctgcattc cagtagtaag ggagcccgcg ggaagggtcg aacaccttgt accagcttgg 420
tggtagggcc tccaacctgg tggcctcgta gtccacagga tcacgtcat agtctctggc 480
aatgatctct tcctctggtt caggctccag atgtttgagg atgctctctt tggccaagcg 540
ggtctgcagc gcaacgggca gcggcatagc tgatagcaga cagacctggg cccacacgac 600
tctcttccca aaacaccgaa tgagaccttc tctcaacgag gccttctctc cg 652

```

<210> 1184

<211> 126

<212> DNA

<213> Homo sapiens

<400> 1184

```

gaattcggcc aaagaggcct agtgaagtgg accaaagtct atggaagtgt ttgctgcact 60
ttggactaaa ataaagaggg cctgtaaggt gttttagaaa cttgtccttc atccacagat 120
ctcgag                                           126

```

<210> 1185
 <211> 468
 <212> DNA
 <213> Homo sapiens

```

<400> 1185
gaattcggcc aaagaggcct aggcagagcc aggttcatac atggaaaagg cctggcgatc 60
cctgcgggtgt gtgctcccgc ctggcgccat ggggtgtgtgt tccgcccgtt cactggggag 120
tggagggtgtg ggcaccggcc ctggaggctg ccggagctgc aggtttctccg cctgcagctt 180
gtggatctct cgtgcagcc tccggagctc gtcgctcagg ctactgttga ctttcatgag 240
ctgctgcacc ttgctctccg atgtagccag ggccttcttc agctccaggt actcctgcag 300
cgtcacagcc ccgtcagaca agtccgagga gtccatgctc cgggcccggg tgctccgagt 360
ggcgccgggtg ctgcgcaggg gctcctggtc tgtgtcctcg tcagaggcca cgctgtcgta 420
gtcgtgttgg tcgtcgaggt cactctggct ccgcagagac agctcgag 468

```

<210> 1186
 <211> 328
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (116)

<220>
 <221> unsure
 <222> (125)

<220>
 <221> unsure
 <222> (147)

```

<400> 1186
gaattcggcc aaagaggcct acacaggcag acatactcac agagacacac acagacacac 60
acaaacagaa actcacacac acaatcacac agagacacac atgcagacac acatanacat 120
acacngacac atagagagac acacgcngac acacacacac agagacatgc acacacagag 180
atacatgcag atacacacag agacacaggc agacacacac acagacccgg acacagacac 240
acacatgcag acatactcac agagacacac acagacacac acaaacagaa actcacacac 300
acaatcacac agagacacac gtctcgag 328

```

<210> 1187
 <211> 488
 <212> DNA
 <213> Homo sapiens

```

<400> 1187
gaattcggcc aaagaggcct agggaaaaag tacaaaactt ttttggtatt tgtacacata 60
gttttggaat gcttaggaat gtgaagtcaa caatatacct ttaaaatatac aaattataag 120
gcaataacaa tttttttcaa accttaaaat gttccaagaa aaatgactaa gaatgatttt 180
tttccatcca gtatatgtct taaaaataag gacaaactat aatagaagta acgatttttg 240
gtacacatgt ttaaaaaaat gtccatgtca ataacaatt tcaattaatc aataaaactta 300
aaacaacct taaatgtaat ttgcattttt gtatcagatc catacaatct caaatatcaa 360
gattttctta agctcaatgc taaatgaccg gatattctatc attgtggaga aacagagttt 420
gatcttaggc agacgaaagg aaaagaaagg cacacaccta gaagaatcac atgagtctca 480
ttctcgag 488

```

<210> 1188
 <211> 473
 <212> DNA
 <213> Homo sapiens

<400> 1188
 gaattcggcc aaagaggcct atgctgcctg agtgccggag acggtcctgc tgctgccgca 60
 gtcctgccag ctgtccgacg atgtcgtccc acctagtcga gccgccgccc cccctgcaca 120
 acaacaacaa caactgcgag gaaaatgagc agtctctgcc cccgccggcc ggcttcaaca 180
 gttcctgggt ggagctaccc atgaacagca gcaatggcaa tgataatggc aatgggaaaa 240
 atggggggct ggaacacgta ccctcctcat cctccatcca caatggagac atggagaaga 300
 ttcttttggg tgcacaacat gaatcaggac agagtagttc cagaggcagt tctcactgtg 360
 acagcccttc gccacaagaa gatgggcaga tcatgtttga tgtggaaatg cacaccagca 420
 gggaccatag ctctcagtca gaagaagaag ttgtagaaga agagctactc gag 473

<210> 1189
 <211> 429
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (145)

<220>
 <221> unsure
 <222> (196)

<400> 1189
 gaattcggcc gaagaggcct aggggtgggt tgtagtctta ggggtggctg gtttgaaga 60
 aagaccacca actgcttccg ttgtctcagt gcctggctca gcataaactg atggaaactg 120
 ggtgggttttgc tccatctatc ctgttctggt tacattgtcc tcgtctgtgt cggtagattt 180
 ttccatctcg taggnactt tagattctac agatgttttt cctggttctt ttaaacttc 240
 taatttcttc tgtggtgtcg ttcttctga ccatttctct actttaatct gatgaaattg 300
 ttttaaccaga tcttttatat ccatagtagt attcctctta tacatagtaa gttcttgaaa 360
 ataagctgct gaaaactggt tgatgtttga tgggttggtt ttgagaacag ctctgctaata 420
 tccctcgag 429

<210> 1190
 <211> 242
 <212> DNA
 <213> Homo sapiens

<400> 1190
 gaattcgcgg ccgcgtcgac atgggctgtg ccttcatcaa cctctgcac ttggcttcac 60
 agcatgcttg ggtcagctc acattctggg aggccagcca gctttacctg ctgttcctga 120
 gccttacgct ggcactgtc aacgcccgtt ggctggaacc ccgcaccaca gctgccatgt 180
 gggccctgca aaccgtggag aaggagcgag gcctgggtgg ggaggtacca ggcacgctcg 240
 ag 242

<210> 1191
 <211> 230
 <212> DNA
 <213> Homo sapiens

<400> 1191
 gaattcgcgg ccgcgtcgac atgaaagcgg ggaaatgtgt gtccccact gtgctgataa 60
 atgtgtccat ggtcgtgta ttgtccaaa cacctgtcag tgtgagcctg gctggggagg 120
 gaccaactgc tccagtgcct gcgatggtga tcaactgggt cccactgca ccagccggtg 180
 ccagtgcaaa aatggggctc tgtgcaaccc catcaccgga gcttctcgag 230

<210> 1192

<211> 217

<212> DNA

<213> Homo sapiens

<400> 1192

```

gaattcgcgg ccgcgtcgac tgctgcccac agacctgcgc tgccactgcc atcgccatcc 60
atcgcatccc accgacagac tgctgcttct agtgatctgt actcacctcg gaggtatctg 120
ggctggacac agccccctgga caatgatcca gacagctggc tgccccctcaa gggacctgtt 180
accttcagcg agacccattt cctccccatc cctcgag                                217

```

<210> 1193

<211> 244

<212> DNA

<213> Homo sapiens

<400> 1193

```

gaattcgcgg ccgcgtcgac cccactcccc ttccccatc tctcactgtt ttgtgtacac 60
actgtgcaca cactacctgt gctccctgcc ccacatgctt gcacactgct tgctcctcct 120
gcagggactc tctctcctt tccacatgcc cgcagcttct cttccaaacct cagtctcaac 180
agctcttctt caccagctga cagccccggg ccattgcccag cattcctctc ccctagcgct 240
cgag                                                244

```

<210> 1194

<211> 236

<212> DNA

<213> Homo sapiens

<400> 1194

```

gaattcgcgg ccgcgtcgac gaaagtcatt tataacccca aatgttcac atactcatct 60
ctatgtatat gctcatctct atgtatatgc cctatgtcac tcaggaaaac attagtctac 120
taaccatctc tcatttaaaa acaaaacctt ttggggccagg cgcgggtggc tacgcctcgc 180
gtcccagcac cttgggaggc ccaggcgggc agatcatccg aggtcaggag ctcgag      236

```

<210> 1195

<211> 231

<212> DNA

<213> Homo sapiens

<400> 1195

```

gaattcgcgg ccgcgtcgac ctgcctgttc tgtatccac tcaaggccct caggcatccc 60
acgttccaca ttctgaaat ggccctgtct cccctcacc acagcctgct cctcagcatg 120
gcagtcactg tctccacca gcttttctgt cagggttcct ggggtcctgc acaagtcctg 180
ctctgcaca tcccacgtca cccgcgtccc acgtcacccc cgtccctcga. g          231

```

<210> 1196

<211> 149

<212> DNA

<213> Homo sapiens

<400> 1196

```

gaattcgcgg ccgcgtcgac attgggggtg cagggtggca gaaggtggat ttgtgtcaag 60
agctgaacat gctgctgcat ctgctgctgg agtctcttcc tttgtgctgg gtccagaatc 120
agggtctgat gaactccctt acactcgag                                149

```

<210> 1197

<211> 207

<212> DNA

<213> Homo sapiens

<400> 1197
 gaattcgcgg ccgcgtcgac ctttaataaa aattaggaga aaatgtcgaa gcagcagctc 60
 ctccactct tggcctgggt ggccctagtt ccactgtaca ctttggccac tgcgtcactg 120
 ccggttccag ggcagccggg agcccccactt gggaccctgg ccctcccttc tgtgaggctg 180
 gtgcttcggg acgtcgccct gctcgag 207

<210> 1198
 <211> 255
 <212> DNA
 <213> Homo sapiens

<400> 1198
 gaattcgcgg ccgcgtcgac gcagcagttt ttgttcattc atttggccca aaatcacgtg 60
 taggatttgg ggatgtggat atttaagaca atttcttttt tcttttggtt taataggggc 120
 gggatatagg accaactggg accgagtggc cagggggcgg agcacgggtc tgcctggccgg 180
 cctgcatgca tgcgtgtgcc gggctgggct gggcggccgg cggctgtggg gcagggttgg 240
 gggcttcacc tcgag 255

<210> 1199
 <211> 226
 <212> DNA
 <213> Homo sapiens

<400> 1199
 gaattcgcgg ccgcgtcgac caggattgtc attttcctct ttgcctgtgg gtttaacttt 60
 tgtatttttt taatcacaag ttgatacaa aatgttttta tcgtactctt tggagatgcc 120
 cattctactt ttgaatttag cttttactaa ttcgcatctg gaagctcagc aagtgcacaa 180
 gccttacttt ggttaccgtg gaaaccactg ccaccctggg ctcgag 226

<210> 1200
 <211> 301
 <212> DNA
 <213> Homo sapiens

<400> 1200
 gaattcgcgg ccgcgtcgac ccgccctgcc cagcatgtcc tcaactttct gggcgttcat 60
 gatcctggcc agcctgtcga tcgcctactg cagtcagctg gccgccggca cctgtgagat 120
 tgtgaccttg gaccgggaca gcagccagcc tcggaggagc atcgcccggc agaccgccc 180
 ctgtgcgtgt agaaaagggg agatcgccgg caccacgaga gcccgcccg cctgtgtgga 240
 cgcaagaatc atcaagacca agcagtggtg tgacatgctt ccgtgtctgg agggctctga 300
 g 301

<210> 1201
 <211> 379
 <212> DNA
 <213> Homo sapiens

<400> 1201
 gaattcgcgg ccgcgtcgac cgcgcgggaa gcacctagag agcggcgcg tgcgcagcggg 60
 agtcgaagcg gagatcccgg gtcgcgcgag agccgcaagc ggagttggtg ggcgctatgc 120
 tatcacccga ggcagagcga gtgctgcggg accttgtaga agtggaggag ctcgccgagg 180
 aggtgctggc ggacaagcgg caggtgagag gcccctccgc ggcgatgggg cctggcggcc 240
 ggcgcctgtg gaaagcgcgc ggggtcgcag tgagttgacc tggacaggcg gttaacggct 300
 ccgaggcgac agacctgggc cgataaatat tcggccgcta ctaagttagc gcctgcgcta 360
 tgctggacat tacctcgag 379

<210> 1202
 <211> 224
 <212> DNA
 <213> Homo sapiens

<400> 1202

gaattcgcgg ccgcgtcgac gtggtggttc cgcgatggta ggcgcgccg gggtcggcgg 60
 cggcctcctg gagaatgcc accccctcat ctaccagcgc tctggggagc ggcctgtgac 120
 ggcaggcgag gaggacgagc aggttcccga cagcatcgac gcacgcgaga tcttcgatct 180
 gattcgctcc atcaatgacc cggagcatcc acaaacgct cgag 224

<210> 1203

<211> 418

<212> DNA

<213> Homo sapiens

<400> 1203

gaattcgcgg ccgcgtcgac gtgatatattg tgggatgggtg ggtatgtttt gtttcctgat 60
 ttctcttcag tctctgctgg gctttgggac taaggctgta cttgcctccc aaagagtttg 120
 gaagtgtctg tcatttctcc ttgccaggaa caccatggct ggcactcgac ggggtggagg 180
 gcagggtggg ggtaggcccg ggggtcctgg ctgcagcctc atgccgccac cccgcagga 240
 gtgcgctggg gagccgctgt tcatgtctga ctgcgccatc aagcagcaga tggagaagg 300
 cccattgac gccatcacgg gtgaggcacg ctactccctg agtgaggaca agctcatccg 360
 gcagcagatt gactacaaga cactgaccct gaactgtgtg aaccagaga aactcgag 418

<210> 1204

<211> 404

<212> DNA

<213> Homo sapiens

<400> 1204

gaattcgcgg ccgcgtcgac ctcatgtga ctttactctc cttcttcttg ggggtgtttg 60
 ttctcttctc ggtttgctgg ttggaagacg aagatgagga ggagctgggt ctggccctcg 120
 aatcgtcatc cgacatagcg aacccccac cccacccgc aaacagcccc tctcttttg 180
 tctggctcct ccgtgccgcc gcggcgctg ctgtgcggc tgcggctggg cctggccact 240
 cgtgtctctc tctcgtggg agagaagcgg aagtgcagca acagcaacta ttaaaccagg 300
 aatggcttcc cccagccaca cacgtctgca cacacaccac tcctccgccc ccgcctctc 360
 ctctctctcc tcctctctct cgccctcacc cctccccct cgag 404

<210> 1205

<211> 351

<212> DNA

<213> Homo sapiens

<400> 1205

gaattcgcgg ccgcgtcgac cgtccttgag gacgcctgc cgggtcagtg ttagcctcca 60
 gccctggttg tggaaggcga cagaagtcac ggcgatgtct gagcagatga gagccaacgt 120
 gggcaagttg ctcaagggtg tcgacaggtc tgagccgggt tggagggaagc gctctggcca 180
 agcggggcgg aggagagggt tttccggaga cagcaagggt tgttcagggt cctgggcttg 240
 ccgcggggtg gggtttctct atcctcctgg aggaggagat gcttaagaa acggcactga 300
 gctgggggta gtggctcagc cctgtgatcc tagcactttg ttaggctcga g 351

<210> 1206

<211> 236

<212> DNA

<213> Homo sapiens

<400> 1206

gaattcgcgg ccgcgtcgac atgggcctct ggttttactt ctgcttcctc ttttttttca 60
 tcatcatcgt catcccagtt atccttgacg tcctcgtcct cgtcctcgcc ttcccagcgg 120
 tccccgccg cagtgcggcc gccccccacc ttccgactg ggtcttccac ggagaaagcg 180
 tcggcgctcc aggagtcgga gtccccgcc gccgcgcgg ccgcgcgcat ctcgag 236

<210> 1207

<211> 278

<212> DNA

<213> Homo sapiens

<400> 1207

```
gaattcgcg cgcgctcgac atggttttcc tttttctggg tgtttttatt gtcacctca 60
ccatcggtgc ttgggcacg tgcctgcctg tcagtctctg gtccctgtt tctgggtgtt 120
ttgattgcca cctcaccat cgtggctctg ggcattctgc tgctgtcag tcttgcctct 180
ccatctgcca tggttttgc aggccttctg tgctctccac cccctctctt gcctcctcag 240
ggaaagagtc ggcaggtgcc ctttctccc acctcgag 278
```

<210> 1208

<211> 393

<212> DNA

<213> Homo sapiens

<400> 1208

```
gaattcgcg cgcgctcgac aaaaggcctt atttctcttc ttgattggca taatgttgtc 60
atttctttac acatcacagt atttcttact tccttaagtg gcgtagggtt tattcctcag 120
cagtcactta tctcatagat tagccaggca tgggtgtgca cactgtgat cccagctact 180
tggtgaggtg aggcaggagg atcacttgag ccccgagggt tgatgccgta attgtgccac 240
tgactcccaa ctgagcgacg tttctctgaa aaaaataaaa ataaaataaa actattttaa 300
aagtaaatat ctcataagat agctgtgtga taaggatgtt tagctatgaa tggctcttgg 360
aaaaggcaag ggcttaaaag aaagaatctc gag 393
```

<210> 1209

<211> 285

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (212)

<220>

<221> unsure

<222> (215)

<220>

<221> unsure

<222> (227)

<220>

<221> unsure

<222> (249) .. (250)

<400> 1209

```
gaattcgcg cgcgctcgac ggcacatttt acaaggaaat ctgtgtcaaa acagataaca 60
gtgcataaat caatccaaat ttagaccctg gcaaccagtt cccattgtc catatacggg 120
actctgtcaa acggtaaata ggcaatcatc tctcttgaaa agtatacatc ctctctcgca 180
ctgggtgaaa gcaaaattga ctttttggtt gntgnataaa aacactnagc acttcagaaa 240
ttaaagaann gcctactcac cccacaccct tcccataatc tcgag 285
```

<210> 1210

<211> 405

<212> DNA

<213> Homo sapiens

<400> 1210

```
gaattcgcg cgcgctcgac tgcagctctg aagaagctgc tctattcggt tttgttttcc 60
cgccactggg gcaagccctc cttccacact atgaagacga aaattgccag caccacatga 120
```

```

agcccgacca ctgcaacaat ggtcgcataa aagccgctgt cttcagggga catcaacatc 180
agacttttggg aaagaagtaa tttgcaggaa aaatataacc ccacaggaac ttttaaccata 240
agccctgcaa aaaggagaaa aatcttgaaa gtcatagcca caacgccttc agacttgggc 300
tcggctgctg cggcagtggc agcccgctgc gcggtaggcg gaggcctgtg agagcgcggc 360
atcgtcagtc agtccgctcg tctgtccgtc cgctgatgcc tcgag 405

```

<210> 1211
 <211> 284
 <212> DNA
 <213> Homo sapiens

```

<400> 1211
gaattcgcgg ccgcgctcgac cacaaccccc actccagggc cagtttcccg cctccagctt 60
cctgtcccat cagaaccgta cactttgagc atgctcagtg tattatatgt tgattacatt 120
tatatattat gaccctattc tatattctat atcagattta ttttattata gccaggtgcc 180
atggctcacg ctcagcctcc caaagtgtcg ggactaccag catgagccac tgcaccacgc 240
ccccagatct ttggcctcat gaggtcgaca gtccagttct cgag 284

```

<210> 1212
 <211> 335
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (21)

```

<400> 1212
gaattcgcgg ccgcgctcgac nacatgttgt cacaccagc catccgcgg agctctctct 60
taactgagaa actcctcaga ctctttctc tcatctcaat tgctctcca gaaaacaagg 120
tgtcagaagc acaggctaata tctggcagcg gtgcttctc caccaccact gccacctcaa 180
ccacatctac caccaccacc actgccgcct ccaccacgc cacaccacct actgcaccca 240
cccctgtcac ttctgtctca gccctgggtg ctgccacggc tatttccacc attgtcgtag 300
ctgcttcgac cacagtgact accccacaac tcgag 335

```

<210> 1213
 <211> 229
 <212> DNA
 <213> Homo sapiens

```

<400> 1213
gaattcgcgg ccgcgctcgac ggataaagca gatgtttatt ggggcattcc ttatcccagc 60
tatgggtgtg ggcactgcct tcttcatcaa tttcatagcc atttattacc atgcttcaag 120
agccattcct ttggaacaa tgggtggcgt ttgttgcatc tgtttttttg ttattcttcc 180
tctaaatctt gtgtgtacaa tacttggccg aaatctatca ggtctcgag 229

```

<210> 1214
 <211> 262
 <212> DNA
 <213> Homo sapiens

```

<400> 1214
gaattcgcgg ccgcgctcgac ctggccttcg actcgctatg tccactaaca atatgtcgga 60
cccacggagg ccgaataaag tgctgaggta caagccccc cggagcgaat gtaaccgggc 120
cttggacgac ccgacgcccg actacatgaa cctgctgggc atgatcttca gcatgtgcgg 180
cctcatgctt aagctgaagt ggtgtgcttg ggtcgctgtc tactgtctct tcatcagctt 240
tgccaaactct aaggagctcg ag 262

```

<210> 1215
 <211> 505

<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (14)

<220>
<221> unsure
<222> (17)

<220>
<221> unsure
<222> (40)

<220>
<221> unsure
<222> (99)

<220>
<221> unsure
<222> (103)

<220>
<221> unsure
<222> (112)

<220>
<221> unsure
<222> (128)

<220>
<221> unsure
<222> (202)

<220>
<221> unsure
<222> (209)

<220>
<221> unsure
<222> (215)

<220>
<221> unsure
<222> (230)

<220>
<221> unsure
<222> (408)

<220>
<221> unsure
<222> (489)

<400> 1215
gaattcgcgg csgngtngac acactggtga ggcggggcan gggttcctgg agagagggca 60
gcgaggatct ctatcctggc ctggggatta tgaacatang tanccggggc anggccctgg 120
gtggggacngt ggcctccact ggcctcacca aagtgcctgg gccccaatcg ttctccatgc 180
ccagggggccc caggtgggcc anacctctng cctgntcctc agccctactn atggggacat 240

```

tcagggacct ccatgaagtg ggcgggggag catccaaccc ctgctagccg gcagctgtgg 300
ccctgatcaa atcaggggct ggggagggaa agtgggtcca ttgaggtggc cctgctccat 360
cagccccccta cgggacttgt gtccattaca gtgagggggt gctcccantg tctcccggcc 420
tccttaatgc tccctttgct gcagggagaa gggttccaag atcacaaaat gtcaacaatg 480
ctggcctcnt gcaccaaagc tcgag                                     505

```

<210> 1216

<211> 263

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (211)

<220>

<221> unsure

<222> (222)

<400> 1216

```

gaattcgcgg ccgcgtcgac cctcaccgag ctcagcctct cgggttgatc caaggtcacc 60
gacgacggcg tggagctcgt ggccgagAAC ctgcgcaagg tgcgcagcct tgacctcttg 120
tggtgcccac gcataccgca catggcgctg gagtacgtgg cctgcgacct gcaccgccta 180
gaggagctcg tgcctcgacg gtgtgtacgc ntcacggaca tnggcctcag ctatctgtcc 240
accatgtcgt cctccactc gag                                     263

```

<210> 1217

<211> 362

<212> DNA

<213> Homo sapiens

<400> 1217

```

gaattcgcgg ccgcgtcgac taaaggctct agaagaggat tatggcctat ttgtaaagct 60
gaggaggagct cagagtagct taatgctgcc tggctgggct ggaggcaggg actgaggggc 120
tgtaattgtt ctggggcaat ggggagccat agagggtgtg tgagcagagg caaagcccaa 180
tcagactagg agcaggggaa agatgctcac ctgggctcct ctgctggccg ccaactccacg 240
gaatggtaca aactcttcac ggccaccagc cactcccgcA gcacagttag cgtgttatcc 300
atgttgtgtg ccgtagccac ccatagcgcc gtgcgctccc gcgggtgccg cagccgctcg 360
ag                                     362

```

<210> 1218

<211> 417

<212> DNA

<213> Homo sapiens

<400> 1218

```

gaattcgcgg ccgcgtcgac cgccaagatg aaccgccaga gaaccaactc catcgggcac 60
aaccaccac actggggggc tgagcgcccc ttctacaacc acctgggttg caaccagggtg 120
tccaaggaga tgaagcggat gggctttgaa gacccaagg acaagaacgc ccaggagagt 180
gcgaaccctg aggatgaagt ggatgagttt ctgggcccgtg ccattgacgc caggagcatt 240
gataggcttc ggtctgagca cgtccgcaag ttccctctga ccttcagga gcctgactta 300
gagaagaagt actccaagca ggtagacgac cgatttggtg cctatgtggc gtgtgcctcg 360
ctcgtcttcc tcttcatctg ctttgtccag atcaccatcg tgccccactc gctcgag 417

```

<210> 1219

<211> 290

<212> DNA

<213> Homo sapiens

<400> 1219

```

gaattcgcgg ccgcgtcgac cttcttttaa aaatatttta agagtattag taaactttgc 60
cttcataaatt tagaatgtca tttctgaaac gaatccacca cttctgggtc tgtgtgaaga 120
atcactcaaaa gcaggttttaaatgcagatt ttctggggcca gtcattggtgg ctcattgctg 180
tggtcccggg actttggggc gggcggatcg cttgggggtcg ggagttcgag gccggcctgg 240
ccaacgtggc aaaaccctgg ccaacgtggc gggatcccgt ctatctcgag 290

```

<210> 1220

<211> 281

<212> DNA

<213> Homo sapiens

<400> 1220

```

gaattcgcgg ccgcgtcgac gagcatagat ggaattccaa aatatgtaca ttcagctggt 60
tggttttttcg tttttcattg ttattattgt gagaatgctg ttattggggg tgtgtgtgag 120
tgcccgtcag ccagtgatgc ctccggccac gctgtggggc caccctcagtc ctgcctgggt 180
cctggtgcct tggaccaccac gtgcttgtgg ccaggctgccc cttgcccag cccggggccc 240
ccatgatcac cgctcgcagc agccgcgcgg acgcccccat g 281

```

<210> 1221

<211> 338

<212> DNA

<213> Homo sapiens

<400> 1221

```

gaattcgcgg ccgcgtcgac ctttttgccg tttcttggat gctgtttaag tgatatttac 60
cttagtagatt tcccaggggt taaggccgct tcagtattaa ggctagatca gagagtttcg 120
ttctgttgct gttgctcaat caatttatgt cgttacatcg tttgtggatc atggctatgt 180
gcctggctct tggccaggag aaggggcagg aaagtgatag tacgaagatg actaacacag 240
gaccctgtcc tttaggaggt gatgtacgtg atgaattagt caagtcatgc atggtggtga 300
gggccatata aggggaaagt gttactggaa aactcgag 338

```

<210> 1222

<211> 409

<212> DNA

<213> Homo sapiens

<400> 1222

```

gaattcgcgg ccgcgtcgac attttatgat aaaaatgaaa ctgagttggt tgggtgaatgt 60
cactggagct atcagcattg ctggaattca ttggtaccat ggcacagaag gctacgtgga 120
gcctgattgc ccttgccctg ctgtttgctt tgataatgga agatgccaaa taatgagaca 180
tgagaatgac caaaatcccg ttttgattga cactggcatg tacgtagtag gcatccagt 240
gaaccacatg ggcagcgtgt tagctgtggc aggcctccag aaggcagcca tgcaggacaa 300
agatgtgaac attgtgcagt ttacactcc gtttgggtgag catctgggta ctttgaaagt 360
tcctggaaag gaaatatctg cactatcttg ggaaggagat ggactcgag 409

```

<210> 1223

<211> 291

<212> DNA

<213> Homo sapiens

<400> 1223

```

gaattcgcgg ccgcgtcgac ggtcactact attgagtttc ttccttaaca ctgattaaat 60
gatcttaact ccctcagcta aaactggcat tactgactcc cagctatatt tctccagact 120
tgcatTTTTT tttttttttt tttgagacag ggtctcactg tcgccaggc tggagtgcag 180
tggcgtgatc tcagttcact gctgctttcc ctccctgggt caagcagttc tcccactca 240
gcctctcgac taacagggac tataatcttg cagcactatg ccgacctcga g 291

```

<210> 1224

<211> 324

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (47)

<400> 1224

```
gaattcgcgg ccgcgctcgac cctaaaccgt cgattgaatt ctagacntgc ctcgaggacc 60
cctagctccg acatgtcgcc ctctggctgc ctgtgtcttc tcaccatcgt tggcctgatt 120
ctccccacca gaggacagac gttgaaagat accacgtcca gttcttcagc agacgcaact 180
atcatggaca ttcaggtccc gacacgagcc ccagatgcag tctacacaga actccagccc 240
acctctccaa ccccaacctg gcctgctgat gaaacaccac aaccccagac ccagacccag 300
caactggaag gggtttggtc cgag                                     324
```

<210> 1225

<211> 326

<212> DNA

<213> Homo sapiens

<400> 1225

```
gaattcgcgg ccgcgctcgac atcaccctta attgttctac ctataaaatc aattcagagt 60
aattctaaac tttocccact ctcaccatgg tcttctgtcc ttccatcttg cattgcatgt 120
ccttttttgc ccaactgcagc cattcttcga cctctagtcc tttgactcct gtactttctc 180
ccaagtgtt tttgtttttg tttttgtttt tgtttttgac ggagtcttgc tctgtcgcgc 240
aggctggagt gcagtgtgtc gatctaggct cactgcaagc tccacctccc ggattcacgc 300
cattctcctg cctcagcgac ctcgag                                     326
```

<210> 1226

<211> 518

<212> DNA

<213> Homo sapiens

<400> 1226

```
gaattcgcgg ccgcgctcgac cttattacaa aatcaaacct gcatgcaatg atcaaagctg 60
aagaaagcag taagcaagaa gagtgcacca caacatcaac agccccagtc cctacaacag 120
aaattccgac cacaatgagc accatggctg ctgccgaagc agcagctgct gttgttgagc 180
cagcagcagc ggcagcagca gcagcagctg cagccaatgc taatgcttcc acttctgctt 240
ctaatactgt cagtggaaact gttccagttg ttccctgagcc tgaagttact tccattgttg 300
ctactgttgt agataatgag aatacagtaa ctatttcaac tgaggaacaa gcacaactta 360
ctagtacccc tgctatttcag gatcaaagtg tggaagtatc cagtaatact ggagaagaaa 420
catctaagca agaaactgta gctgatttta ctccccaaaa agaagaggag gagagccaac 480
cagcaaaagaa aacatacact tggaatacac agctcgag                                     518
```

<210> 1227

<211> 733

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (3)

<220>

<221> unsure

<222> (12)

<220>

<221> unsure

<222> (20)

<220>
 <221> unsure
 <222> (28)

<220>
 <221> unsure
 <222> (46)

<220>
 <221> unsure
 <222> (82)

<400> 1227
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 actgtaactg tggggtaggg ggggtggcct atgcctgtaa tcctagcact ttgggaggct 180
 gaagtgggga ggatcactgg agcccaggag ttctaaacca gcctgggcaa catagggaga 240
 cctgtctctt acaaaacaaa acaaagacca taactatgga aaaacctaata gctacagtaa 300
 ctgatgtcat tcatgttaact catgttgtgt aatgttttcc tagaaatttc aaggtaaaga 360
 tgtcgggggtt aagtgtttga tatatcccag tcaactgtgac agttttgact cttcacgcct 420
 ccaaaaattg ttttcagccc agaaacattt gagaggcttt taaagtggaa agaactgcct 480
 ttatacaatt tacaatatcat ttctcttccc tccgaagaca cagatgacag gaaaatcact 540
 tactccatta aagtctcttt tcagaattaa tctgggctgg agccacaaaag aattttgttt 600
 tggctctctt aaagccaaag gtcataagtaa tatataaaca gaatggaatg ttttgatta 660
 atgacatgtt tgagaaaagt aatttaagct tttgcttttt agatgtcata cttgtaacac 720
 cacagatctc gag 733

<210> 1228
 <211> 488
 <212> DNA
 <213> Homo sapiens

<400> 1228
 gaattcgcgg ccgcgtcgac gaagaggaag aaccaatgga tacttccagt gtaactcaca 60
 cagaacacta caagacactg atagaggcag gcctcccaca gaaggaggca gaaagacttg 120
 atgaaatatt tcagacagga ttggtagctt atgtcgatct tgatgaaaga gcaattgatg 180
 ctctcaggga atttaatgaa gaaggagctc tgtctgtact acagcagttc aaggaaagtg 240
 acttatcaca tggttcagaac aaaagtgcct ttttatgtgg agttatgaag acctacaggc 300
 agagagagaa acagggggagc aagggtgcaag agtccacaaa gggacctgat gaagcgaaga 360
 tcaaggcctt gcttgagaga actggttata ctctggatgt aaccacagga cagaggaagt 420
 atgggtggtcc tccaccagac agtgtgtact ctggcgtgca acctggaatt ggaacggagg 480
 aactcgag 488

<210> 1229
 <211> 756
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (28)

<220>
 <221> unsure
 <222> (53)

<220>
 <221> unsure
 <222> (61)

<220>
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 <222> (80)

<220>
 <221> unsure
 <222> (85)..(86)

<220>
 <221> unsure
 <222> (185)

<220>
 <221> unsure
 <222> (375)

<220>
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 <222> (398)..(400)

<220>
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 <222> (477)

<220>
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 <222> (669)

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 <221> unsure
 <222> (719)

<220>
 <221> unsure
 <222> (727)

<400> 1229
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 ntgggattcc tggatcatcan gcaannatca agcccgctcc tccacaaaacc gagcaagtag 120
 agagcaagag gaagtcaggg ggaatgagg ttagcattga ggaacgtctg ggagcaatgg 180
 atatngacac acacaaaaag gaaaggaaga cctccagacg aatagctttc cagttcttct 240
 taccagggc tttagaaagta acgattttga aatgctaaat aaagtacttc aaactaggaa 300
 tgtaaacctt ataaagaaga ctgtattaag gatgccccctg catactatta ttccgttggt 360
 acaagagctt acaangaggt tacaaggaca tcctaattnnn gctgtgctaa tggttcagtg 420
 gctaaaatgt gtgttaacag ttcatgcac atacctgtcc acgttgctg acctggnccc 480
 cagctgggga cactctacca gttaatggaa agcagagtca aaacttttca gaaactttca 540
 caccttcacg gaaagcttat tcttctaatt acacaagtaa cagcatcaga gaagacaaag 600
 ggagcaactt cccttggaac gaaggcaaag ttggtgtatg aagaagagtc ttctgaagag 660
 gagtctgang atgaaatagc agataaggat tctgaagata attgggatga agatgaggng 720
 gagagtnaaa gtgaaaaaga tgaggacact ctcgag 756

<210> 1230
 <211> 396
 <212> DNA
 <213> Homo sapiens

<400> 1230
 gaattcgcgg ccgcgtcgac gaaagaaact gaggtgcac aaatggagca tcagaaggag 60
 agaaacagct ttcaagagag gatccaggca cttgaagagg acctgagaga gaaggaaaga 120
 gaaattgcta cagagaagaa aaatagtcta aagagggata aagccattca gggtttaacc 180

```

atggcattaa aatcaaagga aaaaaaggtt gaagaactta actctgaaat tgaaaagctc 240
agtgtgcct ttgctaaagc cagagaggcc ctacagaaag cacagaccca ggaatttcag 300
gggtctgaag actatgagac tgctctatca ggaaagggaag ccctttcggc tgcgctgcgc 360
tcacaaaacc tcaccaagag tacagaaaac ctcgag 396

```

```

<210> 1231
<211> 362
<212> DNA
<213> Homo sapiens

```

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<400> 1231
gaattcgcgg ccgcgtcgac ggaaagatga atgtcgagga agatgtccag gaagagcaaa 60
gcaagggaagc cagtgtaccct gagagcaacg aggaagaagg tgacagtcca ggcggggagg 120
acacagagga gagcgacagc ccagatagcc acttggacct ggaatccaac gtggagagtg 180
aggaagaaaa cgagaagcca gcaaaagagc agaggcagac tcctgggaaa gggttgataa 240
gcggcaagga aagagctgga aaagctacca gagacgagct gccctacacg ttcgcagccc 300
ctgaatccta tgaggaactg agatctctgt tgtttaggaag atcgatggaa gacgagctcg 360
ag 362

```

```

<210> 1232
<211> 170
<212> DNA
<213> Homo sapiens

```

```

<400> 1232
gaattcgcgg ccgcgtcgac aacactgata acactcagaa aaccacagtg tgttttcata 60
tttggaactt tgtaatagcg ggagtagcag tagtccaaac ctagtatagg gaaaggataa 120
aaataagtca ctttcaccaa gagatgcca tgattaccaa acaactcgag 170

```

```

<210> 1233
<211> 317
<212> DNA
<213> Homo sapiens

```

```

<400> 1233
gaattcgcgg ccgcgtcgac gacatctcca tggagatccc ccaagaattt cagaagactg 60
tatccaccat gtactacctc tggatgtgca gcacgtggc tcttctcctg aacttcctcg 120
cctgcctggc cagcttctgt gtggaaaacca acaatggcgc aggccttggg ctttctatcc 180
tctgggtcct ccttttctact ccctgtcctt ttgtctgctg gtaccgcccc atgtataagg 240
ctttccggag tgacagtcca ttcaatttct tcgttttctt cttcattttc ttcgtccagg 300
atgtgctcgg cctcgag 317

```

```

<210> 1234
<211> 301
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> unsure
<222> (75)

```

```

<220>
<221> unsure
<222> (98)

```

```

<220>
<221> unsure
<222> (106)

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```

<220>

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<221> unsure
<222> (141)

<220>
<221> unsure
<222> (244)

<400> 1234
gaattcgcgg ccgcgtcgac caaagcaaga ccactgatgc agaccctgcc ttttaagaacc 60
acgggtcaaca atgggnactgt gttaccaaag aaacctantg gctctntacc atccccctcc 120
gggggtcagga aagaaactgc ngtgccagca accaaaagta acatcaagag gaccagctct 180
tctgaacgag tgtctcctgg ggggtcgaagg gaaagcaatg gggattccag aggaaaccgg 240
aatnnggcaca ggctccacca gcagctcttc cagtggcaaa aagaacagtg aaaagctcga 300
g 301

<210> 1235
<211> 346
<212> DNA
<213> Homo sapiens

<400> 1235
gaattcgcgg ccgcgtcgac gtggaggttg gtctttggaa gtgatgaaga tgaatcgctc 60
ttggggcaggc acctacctgc ttccagagat cttttgccta ggttttcaaa agcctcactt 120
aaactttttg tttttgcttt gctggaaggt aaactcagcc tgcgggtttc taagccctga 180
aggccaccag gactcgcagg accccctctg tacatgttca tggcccagga gtccgggagg 240
cacatccggc gaggtcggtt cctgggactc aggcaatatt cccgatgaag ctgatcaaat 300
cggatttcaa tctccctctg acggttctct ccatggcccc ctcgag 346

<210> 1236
<211> 353
<212> DNA
<213> Homo sapiens

<400> 1236
gcctcaagaa agccctggaa cgaagtgata agtatataga ggaactagaa tctcaagttg 60
cacagctaaa aaattcaagt gaagagaaag aagctatgaa ttccatttgc cagacagcac 120
tttctgcaga tggcaaaggg agcaaaggca gtgaggagga tgtggtgtca aagaatcaag 180
gcgatagtgc cagaaagcag cctggctcat ccacctccag ttcttctcac ctacggaagc 240
cttccagcag cagactgtgt gacaccagtt ctgcaaggca ggaaagtacc agcaaagcag 300
accttaactg ttctaagaac aaagacctat atcaagaaca ggtagaactc gag 353

<210> 1237
<211> 856
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (62)

<220>
<221> unsure
<222> (123)

<220>
<221> unsure
<222> (182)

<220>
<221> unsure

<222> (202)

<220>

<221> unsure

<222> (418)

<220>

<221> unsure

<222> (447)

<400> 1237

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gaattcgcgg ccgcgtcgac caatttttaa acttatgaac atccaacagc aactaatgaa 60
ancaaacctc aagcagatgg acagtcctat gcccttaatg atgacagcac aggatccctc 120
cantgcccc ggagacagat ggccagtttc ttccctgtgc accggagccc acggaccctc 180
ancgactttc ttcttctgaa gnagactgag agcactcagt gctgcccagg gagccctgtt 240
gcacagactg aaagtccctg tgatttgtca agcatagtgt aggaggagaa tacagaccgt 300
tcctgtagga agaaaaataa aggcgtggaa agaaaagggg aagaggtgga gccagcacct 360
attgtggact ctggaactgt atctgatcaa gacagctgcc ttcagagctt gcctgatntg 420
tggagtaaa ggcacggaag gcctttntgc ctgtggaaac agaaatgaag aaactggaac 480
aaaatcttct ggaatgccca cagaccagga gtccctgagc agtgagatg ctgtgcttca 540
gagagacttg gtcacggagc caggcacagc ccagtattcc tctggagggtg aactgggagg 600
catttcaaca acaaatgtca gtacccaga cactgcaggg gaaatggaac atgggctcat 660
gaacccagat gccactgttc ggaagaatgt gcttcaggga ggggaaagta caaaggaaag 720
atgtgagaac tctaattatt gcacagctgg agcctctgac gtgcacgtca caagtaagcc 780
tgtggataaa atcagtgttc caaactgtgc ccctgcgcgc agttccctgg atggttaacaa 840
acctgcgagt ctcgag                                     856

```

<210> 1238

<211> 358

<212> DNA

<213> Homo sapiens

<400> 1238

```

gaattcgcgg ccgcgtcgac atgcttcata tgcattgggt gaggtctcct ttgtttctg 60
tttccatctt gcatggggtg ggggtgggga gacggcaagg gaactgcttg atttatataa 120
tatataattc ctctaactgt gatcttcatt ttataggttt tagcttttaa ttgttgcat 180
tacttcttgc atttaattag tagatgtttt cttttgggtt ccagcttaga ttttttatgc 240
tgtaataaaa atggcacctc atcaagtact cttttgggtt agttggagtt tacttgcaaa 300
attagtctcc tttgatgggc agtcgtgtga atcattcttt gttcacgaaa cgctcgag 358

```

<210> 1239

<211> 623

<212> DNA

<213> Homo sapiens

<400> 1239

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gaattcgcgg ccgcgtcgac caaattctta tgactttgtg gttttataga tgttctagaa 60
actttgtatg taggtatcta caaaattagt tcattccctt gaatatcttt gcattcatat 120
ttttgaggtc ttgatgtttt cagcctctgg cgaatctttt tcattgaatt tgaaccattt 180
gtaaaatctg tgatgctgaa gcagagtgtg tcacaaagtg atgagaacat tactaaaatc 240
cacggacgca ctgcgaccta agggctcaac ggctgactcg gcagcgggca gccacccac 300
gtcctccctg ggtcactcgc acaccacagc ctgaagctcc cccagcgctt gcacctcgca 360
cacagctaag gtcaaaagtt aaacgcactc cacacggaag ctcatcttat acccgaagag 420
cagtcctcaga aagcaagatt acttttgtgt tttttaaaaa atgattcttt aatgtatctt 480
tctaaacatt ctgattggaa gtagtggatt cctaaatgat tccaaagtca cctgtaattc 540
ttctgttttt gttttgttct gtcttttctt ctttttggtt ttgggtgggg ggaggggag 600
gtgacacaaa ggacgagctc gag                                     623

```

<210> 1240

<211> 323

<212> DNA

<213> Homo sapiens

<400> 1240

```

gaattcgcg cgcgctcgac gatcttacca agatgcatct cacagaaaac cctcatccac 60
aggtgactca tgtgtcttct agtcagtctg gttgtagcat tgccagtgc tctggaagca 120
gcagtttata tgatatctat caggctacgg agagtggagt aggagatgta gatttgacac 180
gtcttccaga aggacctgtt gattctgagg atgacgaaga ggaagatgaa gagattgatc 240
gaacagatcc attgcagggg cgagatcttg ttcgagaatg tcttgaaaaa gaacctgcag 300
acaaaactga tgatgacctc gag                                     323

```

<210> 1241

<211> 168

<212> DNA

<213> Homo sapiens

<400> 1241

```

gaattcgcg cgcgctcgac cagaatgcga ttcttctgcg gttcgttcac cttgcccggc 60
aggcagcagt gtgatagggc attgtggatg atgaacttgt tggacttggc gctgggttct 120
ttgtacagcc gtggacctgt gtactcgggc actgacgctg ttctcgag 168

```

<210> 1242

<211> 428

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (52)

<220>

<221> unsure

<222> (113)

<220>

<221> unsure

<222> (412)..(413)

<400> 1242

```

gaattcgcg cgcgctcgac attccaacta gtgaatttat taacagtaag tnaacagcaa 60
aagcaaatag gcaacttcaa gatccttttag taatcatgac aggaaacatc ccnacatggc 120
ttactgagct aggaaaaacc tgcccatttt tctttccttt tgatacccg ccaatgcttt 180
tttaagtaac tgcatttgat cgggaccgag caatgcaaag attacttgat accaaccag 240
aatcaacca gtctgattct caagatagca gagttgcacc tagattggat agaaaaaac 300
gtactgtgaa ccgagaggag ctgctgaaac aggcggagtt tgtgatgcag gacctcggca 360
gctcacgggc catgttagaa atccagtatg aaaatgaggt tggtagaggt cnnnggtctc 420
cactcgag                                     428

```

<210> 1243

<211> 735

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (65)

<220>

<221> unsure

<222> (443)

<400> 1243

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gaattcgcg cgcggtcgac catcccatca ccttcacctt tgaggtttat ccaggatctg 60
acaantccca gcatcccagc tgctgcccc tggtctggcc tctgtctccc caaccccagg 120
catcttcccc ttctccacat gcggttggcg caagccaggg gggaatcaga gccccctac 180
agactcgaag gtgggcttgt ttctgtgacc tgcaagcccc cttcccacct gacttccatc 240
ctctctcttc ccctcgcttg ctgtgctgtg gccatgctgg ggtcctgctt gcacttccca 300
cggatgattc tcagcacatc ccatcagttt cacttttgaa gctgcccccc tgggctgctc 360
ccaccatagg ctgcgtcatg cattccctct tctcagatgg ccgtgccttg cgcctcactc 420
ctgcgtctcc tccagggtc atntcagatg tccccctctt gccagggtc tccctggcca 480
cctggccaca cgctcactcg cactgctgtt tcttagtgtt tctcagtggt tgtagcttat 540
ttcttgttgt ctgtggtccc caccatagac tgtgtggtta tgtttgtctt cattcagagc 600
accatgcccc gagtccacga ggccctggca cagaggcagc caccaggatg tggttgttta 660
acaaatagat gggagtgtgt ctcttcgatg gcttctgtc cgtggcagtt ctgggggtccc 720
ccccaccgac tcgag 735

```

<210> 1244

<211> 576

<212> DNA

<213> Homo sapiens

<400> 1244

```

gaattcgcg cgcggtcgac cgctcgattga attctagacc tgccctcgaga tttgatgccg 60
tgttctcttc ggaccagttt taagccatct cttctgttgt ttctttcttc ccaaagatgt 120
agacttttcc acttaaaagc atttccaaga ttctattttt tcatcctttt ttctgtccct 180
attctctttc actcccaca ctgtttccca gcctgtctct gttgtctctga tgtccatgtt 240
gatgggtggc gtcttcaacc atgccatccg tgtgccaacc cagcactttc ctgccatccc 300
tgtagccctt gcccacaacat ctgtgcattt gactccccct ctctgaccga ggctgtctcc 360
catccccctc tctaccaact catcccttct ctcccacctg ccctttgtgc tgccccccac 420
aaccacacca ctcagggtct cagctcttgg gatcacattg acacaccccc acattttaca 480
ctctgtggcc cattgcttct gagctgtatt gtccagcacc atgaggaccc caccatgga 540
gacactgggt tttgtaccat cccagacca ctcgag 576

```

<210> 1245

<211> 756

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (14)

<220>

<221> unsure

<222> (81) .. (82)

<220>

<221> unsure

<222> (85)

<400> 1245

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gaattcgcg ccgngtcgac cgcggccgcy tcgaccggta ttagaggaaa atagtaaact 60
gaaactctat ttctgttctg nnagngccaa ttccacctat tgtattactt cgttaccat 120
tgcagctgtg tagtcagtca tccataggat tctttttgtt agacacaaag tagaaaccag 180
ctgtttggcg ttgagacaag taggaatctt aggaaatgtt agcctgccag ttctacttt 240
tcctaactac ctgctcacc acccccatca aatggtggtc atgttttttg tcaccacca 300
ttcagggggag atgctatcaa cgaaccacgc tggctacaca caaatacctt ttctcagat 360
gatattaatc atctttgcct taaaaactga agctctacca agtttttact atgagagaaa 420
aaaaattaca acacctagcc ttgtagttaa caccacaact gactaatgga agttgacaag 480
atctaataatg ttatacaaac tatcccaagg tcacaggaaa ttaatggcaa tattatacaa 540
ggttagggta gttcactttc tataggaatt tggattttac ttcttaaact acaatggaaa 600

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tgtctcaggc agtctgcttt gggaaatgtat tcttgaataa tactgatttc tcattgaagg 660
 aaaaaacact atatccaaca actcagatat ggcagaagtg aagtcaatgt tccgggaagt 720
 tcttccaaag caaggtatgt acaccacaaa ctcgag 756

<210> 1246
 <211> 539
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (11)

<220>
 <221> unsure
 <222> (17)

<400> 1246
 gaattcgcgg ncgcgtngac ccaaagcatt gaaagccgaa aagagaagaa agctgactca 60
 gggaaagggtg ttgacaggga gacttgctta tgactcgatc ttcaatttat tttttacata 120
 tatatgagaa gagtgtcaca attattaata aaactgcttt gatcatgtat tgtaaattct 180
 gtccctcaac ccaaatccac cttcatactg taagtagtgc aataacttgtt tcatttctgt 240
 gtttaaacct ctgagcagtg agacatccct gtgagcagat acaatagcca atgcaagaat 300
 ctgtgtgttc cttgctgtac gttagacatt tgtaaaactgg attctgattg tcagttttat 360
 gagagcaata gcttccttaa agagataagt catatttacc tagtttgtat tttcctactt 420
 tagtgacctg aagatgcctg ataatttcat tcagaagaat ttttgaaaagg tagtcttact 480
 tctttttagt ttttatagct tagcattagt gacttatttc aaaagacca aatctcgag 539

<210> 1247
 <211> 720
 <212> DNA
 <213> Homo sapiens

<400> 1247
 gaattcgcgg ccgcgtcgac ctgaagagag gaggctggct gcatcatggg agaagagact 60
 attgggaaga agttacctgc aactacagca actccagact catcaaaaac agaaatggac 120
 agcaggacaa agagcaagga ttactgcaaa gtaatatctc catatgaggc acagaatgat 180
 gatgaattga caatcaaaaga aggagatata gtcactctca tcaataagga ctgcatcgac 240
 gtaggctggt gggaaggaga gctgaacggc agacgaggcg tgttccccga taacttcgtg 300
 aagttacttc caccggactt tgaagaggaa gggaatagac ccaagaagcc accgcctcca 360
 tccgctcctg tcatcaaaaca aggggcaggc accactgaga gaaaacatga aattaaaaag 420
 atacctctcg aaagaccaga aatgcttcca aacagaacag aagaaaaaga aagaccagag 480
 agagagccaa aactggattt acagaagccc tccgttcctg ccataccgcc aaaaaagcct 540
 cggccaccta agaccaattc tctcagcaga cctggcgcac tgcccccgag aaggccggag 600
 agaccggtgg gtccgctgac acacaccagg ggtgacagtc caaagattga cttggccggc 660
 agttcgctat ctggcatcct ggacaaagat ctctcgacc gcagcaatga catactcgag 720

<210> 1248
 <211> 123
 <212> DNA
 <213> Homo sapiens

<400> 1248
 gaattcgcgg ccgcgtcgac atttgagtgg gggcatagcc aaaccatatt acttattaat 60
 atttatttcc tcaaagttat attctccatt tgggcagtg taaagatgag aaaaacactc 120
 gag 123

<210> 1249
 <211> 193
 <212> DNA

<213> Homo sapiens

<400> 1249

gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaata ctagccagc ccatctcaga 60
cactctcccc taaaaactct ggtcacatta agctcactgt cctctcaact tctgtgcacc 120
tttgcataag ctgttctttt tactcagaat gctctccttc ctctttgtct taataacatg 180
ggctatcctc gag 193

<210> 1250

<211> 661

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (24)

<220>

<221> unsure

<222> (36)

<220>

<221> unsure

<222> (123)

<220>

<221> unsure

<222> (172)

<220>

<221> unsure

<222> (191)

<220>

<221> unsure

<222> (283)

<220>

<221> unsure

<222> (289)

<220>

<221> unsure

<222> (296)

<220>

<221> unsure

<222> (309)

<220>

<221> unsure

<222> (321)

<220>

<221> unsure

<222> (368)

<400> 1250

gaattcgcgg ccgcgtctac acanaaatta gaagcntagt atgattgcc aatcagaga 60
atctkgcaaa gttctgtaat tctaagtgtt gtgctatatt tcctctggag aaggttatta 120

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gantctccat tgcggtttctc tttctccatc tctttccctt gaggttagga gncagggttaa 180
aactcagaga nctcccaata ataatgggtt aaaaacatca ggggcttcct gtatctcctg 240
tcaggaagcc gaggaataag caggctgggg ctggtgggcg tcnacatcnc agtttngttc 300
tatctttcng tcccacctgc nctgggatgt ggcttctaca ctggaatttg cttcttggtt 360
tcaagacngt ggtgttcttt ccatagctga gcagattatt ttgagagggtg ggtgatatgt 420
gagagagaaa tctggaacct tcttctgggt agatacagga taagatagat acagggtaaa 480
atgttgagca ctttgtacat gctttgagag cataatcttt gtcattctgt tttttccctt 540
agacaatata aggttaccgt caacattaat ccatttaaaa ggacatggac tgttgccatt 600
aatacttttg gattccatat aacccttaac acaataactt ctagaaaatg tgtgtctcga 660
g                                                                                   661

```

<210> 1251
 <211> 534
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (68)

<220>
 <221> unsure
 <222> (91)

```

<400> 1251
gaattcgcg cgcgctcgac agctatgcaa gaagctcttg ctaagcttaa agaggaagaa 60
gaaagacnga agagagaaga ggaagaacgt ntaaaacggc ttgaagaatt agaagccaag 120
cgtaaaagaag aggaacgatt ggaacaagaa aaaagagaaa ggaaaaagca aaaagaaaaa 180
gaaagaaaaag aacgccttgaa aaaagaaggg aaacttttaa ctaaatccca gagagaagcc 240
agagccagag ccgaagctac tcttaaaactg ctacaagctc aggggtgttg agtgccatca 300
aaagactctt tgccaaagaa gaggccaatt tatgaagata aaaagaggaa aaaaatacca 360
cagcagctag aaagtaaaga agtytctgaa tcaatggaat tatgtgctgc tgtagaagtt 420
atggaacaag gagtaccaga aaaggaagag acaccacctc ctgttgaacc agaagaagaa 480
gaagatactg aggatgctgg attggatgat tgggaagcta tggccggact cgag 534

```

<210> 1252
 <211> 635
 <212> DNA
 <213> Homo sapiens

```

<400> 1252
gaattcgcg cgcgctcgac caatttcttc agccttctac atcctctaca atgtcagctc 60
aggctcattc gacatcatct cccacagaaa gccctcattc tactcctttg ctatcttctc 120
cagacagtga acaaaggcag tctgttgagg catctggaca ccacacacat catcagtctg 180
ataacaataa tgaaaagctg agccccaac cagggaagag tgaaccagtt ttaagtttgc 240
actacagcac agaaggaaca actacaagca caataaaact gaactttaca gatgaatgga 300
gcagtatagc atcaagttct agaggaattg ggagccattg caaatctgag ggtcaggagg 360
aatctttcgt cccacagagc tcagtgcac caccagaagg agacagtga acaaaagctc 420
ctgaagaatc atcagaggat gcgacaaaat atcaggaagg agtatctgca gaaaaccag 480
ttgagaacca tatcaatata acacaatcag ataagttcac agccaagcca ttggattcca 540
actcaggaga aagaaatgac ctcaatcttg atcgctcttg tggggttcca gaagaatctg 600
cttcatctga aaaagccaag gaacgaaaac tcgag 635

```

<210> 1253
 <211> 319
 <212> DNA
 <213> Homo sapiens

```

<400> 1253
gaattcgcg cgcgctcgac cgattgaatt ctagacctcc ctcccttctt tcttttctt 60

```

```

ttttcttttc tttttttctt tttttcttcc tttctttctc cctctttctt cttcttttct 120
ttctctctct ttcttcttcc tttctctctt ttttattaaa aaaatgggat aattctacac 180
aaactggcca aaaacttggt ttatttgctc gcccttctag gtcaatatgt acaaatctac 240
tttcttattt ctattggcca gccagtgtac ttttgcttgg atgtttcaga aattatttaa 300
ccattcctct actctcgag                                     319

```

<210> 1254

<211> 615

<212> DNA

<213> Homo sapiens

<400> 1254

```

gaattcgagg ccgcgtcgac agcttttaga aaaggaaaga ggaaaagaac agagacaatg 60
gactcagaaa atgcaaatag tgacatggat aaaggacaga gagaccata ttcgggaaat 120
gcctttctgc ctgggtgaaag ctccagtggag gatgaagagc ctttagcaga attgtcaaag 180
gaagaattgt gcgccaaaat aaaaagcctg aaagaaaaac taacaaacac ccggaaagaa 240
aacagccgac ttcgacagtc tttggtcatt cttcaagtgt taccacaagc agtcaccag 300
tttgaagaat tgggttggtat ggccgaggct ctgcttaagg gtggggggaac catgtctaca 360
tctgcatcca cctcttgagg agcaacaaac aactcctcgc cagattcatt tgcctcaaca 420
tgcagttaatt ctaattctaa ctccagttca ccagtttctt taaagcctga ggaagagcat 480
cagactgatg agaaacagtt ccagattgaa aaatggcaga ttgcccggtg taacaagagc 540
aagcctcaga agttttattaa tgatttaagt caagtacttt acacaaatga atacatggcc 600
actcacaacc tcgag                                     615

```

<210> 1255

<211> 454

<212> DNA

<213> Homo sapiens

<400> 1255

```

gaattcgagg ccgcgtcgac cctaaaccgt cgattgaatt ctagacctgc agagtgaaga 60
aagctggtaa tagatgtctg acaaaactaaa gaaagacttg tgttaccaca attcagacag 120
cccggaaat caagattcat ctttttctact aattgtggca ttcacagatc agaacataat 180
acctgaaaaat ttgccagcac caacagacaa atgtaaacta aaatatcagc aatgtaaaaac 240
tgaaattaaa gagggctata agcagtatag tcagagaaat gcagaaaaata caaaatcaaa 300
tgttacacat aaacagtcct caagaacaaa gatagatgaa aagtgtgtgc aagatgaaga 360
agccaacaca gatgacctta cgactctgga taggaaagcc atcttacagc aaggttatgc 420
agacaactct tgcgataaac aacagaggct cgag                                     454

```

<210> 1256

<211> 682

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (130)

<220>

<221> unsure

<222> (143)

<400> 1256

```

gaattcgagg ccgcgtcgac ggtatacttg aatgttgatt cctgcagcaa ttgttggttt 60
gtgcgttttc ttctatggat tatttacaat gaataatagt caagtaagcc aagaaatttg 120
taaagccacn gaagtcttta tgngccctct ctgtgacaag aactgctccc tgcagagact 180
caacgacagc tgtatctatg ccaagggtgac atatttggtc gataatggag ggacagtctt 240
ctttgctatt tttatggcaa tatgggccac agtcttctct gagttttgga aaaggagaag 300
gagtatactg acctatactt gggaccttat cgaatgggaa gaagaggagg aaacacttcg 360
tccccagttt gaagccaagt attacaagat ggagattgta aatcccatca cgggaaaacc 420

```

```

tgaaccacat cagccttctt cagacaaagt cactcgtctt cttgtttctg tctcaggaat 480
attcttcatg atatccttgg tgatcactgc agtggttggg gttgtgggtg accgcctggg 540
tgatcatggaa cagtttgcac cattcaagtg gaatttcac aaacaatact ggcagtttgc 600
aacatctgct gctgctgtct gtatcaattt cataatcatt atgttgctga atcttgctta 660
tgaaaaaatt gcttacctcg ag 682

```

<210> 1257

<211> 124

<212> DNA

<213> Homo sapiens

<400> 1257

```

gaattcggcc aaagaggcct actacgactg accagcaacc tcttttctt ttgtgtttta 60
tatatcttta aaatatcttg tcagttttgc tatgtatggt cttccattca ccaccgcct 120
cgag 124

```

<210> 1258

<211> 535

<212> DNA

<213> Homo sapiens

<400> 1258

```

gaattcgcgg ccgcgtcgac gaagaaaatt ctaagtccta ttggttaaag ggggaaaaaa 60
agcatctagc tccagcttca ggcactattg aattcaggaa ttttgacaag ccaagggctg 120
tcactctcca cctctccaca gtggttatct ctacttgatc ctcactcaca agcacacat 180
gtccaagtgg tggaaaagat ggttcttggc aactccaagc ttacatctca tctcctttta 240
gaaattctct tcccaactat tccagcaaga attccagatt gcagtctcat tggtagatct 300
tatagtccat gcacatctcc aaatcaatca tctaattctt ggttgcccac tttagagcca 360
gagggcaggg tcagcccca gaaagctgca tagactatga acggaggcca gatcagggac 420
ctcttaccaa aatgtgttgg tggataagca aaatctaggt tcttgttatc aacaacaatt 480
atagttaaag ctgtcacaga cattcaaacc tgtgctttct cccctccac tcgag 535

```

<210> 1259

<211> 533

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (35)

<220>

<221> unsure

<222> (54)

<220>

<221> unsure

<222> (63)

<220>

<221> unsure

<222> (74)

<220>

<221> unsure

<222> (80)

<220>

<221> unsure

<222> (118)

<220>
<221> unsure
<222> (132)

<220>
<221> unsure
<222> (151)

<220>
<221> unsure
<222> (158)

<220>
<221> unsure
<222> (170)

<400> 1259
gaattcggcc aaagaggcct atgctttttt ttttnaagt actgtccctc tttngtaaag 60
canttgtcac tcanggtctn cctcaaaatg gactgctttt ttaggggatg tgtgggantt 120
gggattaggt tnggctattg ataactggaa nttcaaaantg gctatggtn aataaacaca 180
caatgggttta ttctctctca aaaaagagtc tgaaggtagg tacacaaggt ctggtatgat 240
aattttacga agtcatccaa aaaaaccca taattcttct gtctttctgg tctgctatcc 300
caatacttgg cttgtatcct caaggccact ttgtggcca agatgggtgc tggagtttca 360
cctccagttg aatgagtcgt agttgtagac taaaaaaagg aaaggtaaaa agttagaaaa 420
gacttccctca aaactgttgt ctcttacctt gataagtagc cttcccagaa acccttaaca 480
cttctactta gatcttattg tacagaactt agtcacgtgg ccacagactc gag 533

<210> 1260
<211> 512
<212> DNA
<213> Homo sapiens

<400> 1260
gaattcgcgg ccgcgtcgac ccaagaagtg cagtggaaaca gctctgtttg gctgaaagta 60
ctcgaccaag gatgactgtg gaagagcaaa tggaaagaat aagaagacat caacaagcgt 120
gcctgagggg gaagaaaaaa gggttaaatg ttatcggtgc ttcagaccag tcacccttac 180
aaagcccttc aaatttaagg gataatccat ttaggactac tcagactcga aggagggatg 240
ataaggaact ggacactgcc attagagaaa atgatgtaaa gccagaccat gaaactcctg 300
caacagaaat tgttcaacta aaagaaaccg aaccccaaaa tgtggacttc agcaaagagt 360
taaaaaaac tgaaaacatt tcatatgaaa tgctttttga acctgagcca aatggagtaa 420
attctgtgga aatgatggat aaagaaagaa acaaagacaa aatgcctgag gatgttacat 480
tcagccctca agatgaaaca cagacactcg ag 512

<210> 1261
<211> 667
<212> DNA
<213> Homo sapiens

<400> 1261
gaattcgcgg ccgcgtcgac ggaagcggag gaagctgatg aaagcagtga agaagaggac 60
tgcactgcag gagagaaggg catttcagga tcaaaggctg ctggagaagg tagtaaagca 120
gggctgtcac cagctaattg ccagagtgc cgtgtgaatc tggagaagtc tttgctgatg 180
aagaaagcag ctctcccccac ttctgattct gggcattgca cagctgaaga ggtgtttgca 240
tctgaagatg aatctgaaga agctcctca ctcaagtgcag aggaagaaga ctcaaaaaat 300
gaagagggcta tttagaaaaaa gctttcaaag ccttctcaag tgagcagtgg tcagaaactg 360
gggccacaga acttcattga tgagaccagt gatatagaaa atttactcaa agaggaagaa 420
gattacaagg aagaaaataa tgattccaaa gaaacgtcag gtgccctcaa gtggaaggaa 480
gacctttcca gaaaggcagc tgaggccttt ctgaggcagc agcaagcagc tccaaacctc 540
cgaaagctta tttatgggac agtgacagaa gataatgaag aagaagatga tgatactcta 600
gaagagcttg gagggttgtt tcgtgtcaac cagcctgaca gagagtgtaa gcacaaggca 660

tctcgag

667

<210> 1262

<211> 734

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (340)

<220>

<221> unsure

<222> (625)

<400> 1262

```

gaattcgcgg cgcgctcgac aattctagaa ctgcctcccc atccaacggc actcacaaca 60
actcgggtgct cccaggttaca gcatcagccc caacatctct gcttcctaag aacatttcca 120
tagagtccag agaagaggag atcaccagcc caggttcgaa ttgggaaggc acaaacacag 180
acccctcacc ttctgggttc tcgtcaacaa gcggtggagt ccacttaaca accacgttgg 240
agggaacacag cttggggcact cctgaagcag gcgtggcagc tacactgtcg cagtccgctg 300
ctgagcctcc cacactcacc tcccccaag ctccagcctn atcaccctca tccctatcaa 360
cctcaccacc tgaggctctt tctgcctccg ttactaccaa ccatagctcc actgtgacca 420
gcacccaacc cactggagct ccaactgcac cagagtcccc aacagaggag tccagctctg 480
accacacacc cacttcacat gccacagctg agccagtggc ccaggagaaa acaccccaaa 540
caactgtgtc aggcaaatg atgtgtgagc tcatagacat ggagaccacc accacctttc 600
ccagggtgat catgcaggaa gtagnacatg cattaagtgc aggcagcacc gccgccatta 660
ccgtgacagt cattgccgtg gtgctgctgg tgtttggagt tgcagcctac ctaaaaatca 720
ggcattctct cgag                                     734

```

<210> 1263

<211> 764

<212> DNA

<213> Homo sapiens

<400> 1263

```

gaattcgcgg cgcgctcgac aagggtcctt tatactgtcg gtctggggga tctgccaggt 60
tatcaatttg acaccttaag ccatctcact caagaatagt acagatgtgt ggaatatgcc 120
aataccttta actccagaca tcatgttctc aagataaaaag ctttttataaa caaaaagcca 180
tcgtatgtct catcaacatg aaattggaat gcaaaaattaa tactgctgag gatttccctc 240
atatcccatg ctgtttaact atctattcta cagtcctaga atcaatcttt tttttaggag 300
acaaggctct tgttacgaag gctggagtag agtggtgcca tcaaagctca gtgcagcctc 360
caactcctgg getcaatcct ttgcttcag cctccccctt ctgagtagct gcaaccacag 420
gcacacgccc caataccag ctagttttta aatttttgtg gagatgaggt gtttgttact 480
ttcttgccca ggctggctct gaactcctgg tttcaagcaa tacaccacc tcagtgtggg 540
gattgcagac ttgagccact gcacctggcc tggaaccaac ctttatggct atcaatactc 600
ccatcagtta actgtctcag gtatcataat atcccttctt atatgtatca aaactcatac 660
tgaacaatga gttctgggtt gcaaaaagta catattaaaa ttttaaatgc tggggcacgg 720
ggctcacacc tgtaattcca gaactttggg actacaggct cgag                                     764

```

<210> 1264

<211> 208

<212> DNA

<213> Homo sapiens

<400> 1264

```

gaattcgcgg cgcgctcgac ttgagattgc tattaagatc gtgctctact gtgatgattt 60
gggtttgttt gataatcaga aaaaagcata tccttttggg tgttcagcca cactgctttg 120
gtgtcacaac tgcacattgg ttccacagct gcaggacaag ttcgagcacc ttaaaatcat 180
tcaacaggag gagataagga agctcgag                                     208

```

<210> 1265

<211> 128

<212> DNA

<213> Homo sapiens

<400> 1265

```

gaattcggcc aaagaggcct agtcgattga attctagacc tgcctcgagt gcgatgttgt 60
tatctgacag ttctccgtcc ctactggcct ttctcctcgt cttcatatct gtacgggtaca 120
agctcgag                                     128

```

<210> 1266

<211> 472

<212> DNA

<213> Homo sapiens

<400> 1266

```

gaattcggcc aaagataggc ctctttggcc gaattcggcc aaagaggcct aagaattcaa 60
tcgacgggttt aggggtggaat cggagctgtt gtattgcctg gggtgtctac tgcagatatt 120
tcatacaata aggatgatga agaaaactct atgcacacta cgggtgtgtt gttttctagc 180
agtgacaagt tcactttgaa tcaggatatg tgtgtagttt gtggcagttt tggccaagga 240
gcagaaggaa gactacttgc ctgttctcag tgtggtcagt gttaccatcc atactgtgtc 300
agtattaagg taaacatcct taaattgagt taacaaatat gtactgaatt tttatttggg 360
tttagtagta acatgagctc ccagttctca caattaagta ttatgattat taaacatatg 420
tgacagtatt taagcacttt aaatactgct ttttaagggt tcctatctcg ag 472

```

<210> 1267

<211> 182

<212> DNA

<213> Homo sapiens

<400> 1267

```

gaattcggcc aaagaggcct acgagggtgg ggagtttatt aaattaatgt taattaagct 60
agtgttgggc aaatatacca tataaaagaa taggttgtga ttcattccta actaaggaca 120
gactacatat gaatgtccaa atgggggctaa ttgtctttga gctaatatcc tacattctcg 180
ag                                     182

```

<210> 1268

<211> 171

<212> DNA

<213> Homo sapiens

<400> 1268

```

gaattcggcc aaagaggcct aagtttgcct agcacatcca ctcccataaa aacaaatcag 60
aaacccccaa ctaattatca aatactgact tatagaatac ctattcttga aataatggag 120
acaacacaca aaaaagcagg aaacagaaac acacgcaccc agacactcga g 171

```

<210> 1269

<211> 797

<212> DNA

<213> Homo sapiens

<400> 1269

```

gaattcggcc aaagaggcct agattgaatt ctgacactgc ctcaatttat ttttaaaatt 60
cacttacgta aatggaatgt gcttttactc ttcttaaaaa agcagctttc atatcacacc 120
cttgtttaca gaaaagctac atgtgctgca tgcctgactt gacacttaag tagcttcttg 180
gatcaaaatg gcttctagat actaaatgcc acttaattca gcactattct tgggttgggt 240
gtataagtaa cactttaaaa cttgcagctc tggaaagaca gaactttact aacaaagtag 300
aaagtgattt caaagtatct tccacaaaag attgtactgg tagggcgggtg acaacattct 360
gttcgatcta ctttcaaatt tctagagaaa atcatttttg aatactactg tactgattct 420
tggccttcgt tgtctctaaa agtgcctgatt ttaacattat cttaaaaactg tccagtttga 480

```

```

attgagcttg ttttcatcaa tatacatatt gaaaattcct ggtgtagaaa actcaacatg 540
tgc tgaatac ggggtgtact tcccttcaac tacctaaaag gctgaacttt tgttaaatct 600
taaagaaaatg gtcccaacag cttaacttca tttttttaat gatagttgaa tgtgttttcc 660
ataaaaaattt cttttaaaaa gagggcaactg attaaaaaaa caacatggcc agcaccatta 720
tacaagtaat gttattgagt ttacaactga agttctgtaa aattgtttct agatcgacag 780
aatgttgta tctcgag 797

```

<210> 1270

<211> 329

<212> DNA

<213> Homo sapiens

<400> 1270

```

gaattcggcc aaagaggcct aggcgggggg gttggaggag gaggcagagt tcaccctgcg 60
aggcagctcg ctctcctttt tcattgatgg gctgtcactc agccgcagca ggatgggctg 120
gtctgaggtg ataacattcc cattcatgtg aagggtgcac ttcacgggct gcccgccag 180
acaccgggtg ttgtacttct tatatgcggt gatggcatcg tcttttttca caaacaccac 240
ctccgctacc ccaggatgga ccagtcgagc tcgcttgagg gcccacaca cacagaaaag 300
ctcaacaatg tctcctcag tgactcgag 329

```

<210> 1271

<211> 250

<212> DNA

<213> Homo sapiens

<400> 1271

```

cagtggcctg agaggaagag accagcagga aggaaagatc ctcagcaaca aagtaaaacc 60
agaacaacag aggacctttc tgtgtaagaa tatttggctt tagaaggtaa ataaaaataat 120
tatatttctt agaattttct gactatccct aaatcctgca ggtaaattat tcccaacaaa 180
ttttcaaaag gcaatcaata ataagtaggt tctttctcaa taacatgagc atatgcttct 240
taaagactgg 250

```

<210> 1272

<211> 311

<212> DNA

<213> Homo sapiens

<400> 1272

```

gaattcggcc aaagaggcct agagagattg acaagctgga cagcatggtg tcagaaggga 60
aagggtgacga gagctacagg gagctcttca gcctactcct gctggagaag gttgaacaag 120
aaacatggcg cgagaccggc atttcctttg tgacctcagt caccgcctc atggaacgct 180
ttcttgacta cagggaactgc atgaaaggag aggaacaga gaataagaag ataggctgca 240
ctgttaacct gatgaatttt tacaatctg agattaacaa ggaagaaatg tatatccgct 300
acatcctcga g 311

```

<210> 1273

<211> 127

<212> DNA

<213> Homo sapiens

<400> 1273

```

gaattcggcc aaagaggcct acgagttctt cctctttaca cgccactagg tcaccaaact 60
gtccctgaaa tttccacca acttgatata ttactcctcc aagatgcttc cctaccccc 120
actcgag 127

```

<210> 1274

<211> 126

<212> DNA

<213> Homo sapiens

<400> 1274

```

gaattcggcc aaagaggcct acttcagctg tcttggttgt agcctctcat ttcccaaaaa 60
cagagaagga aataaatatc caaattcatc tctcacctga tgcggttcct ctccacgcat 120
ctcgag                                           126

```

<210> 1275

<211> 182

<212> DNA

<213> Homo sapiens

<400> 1275

```

gaattcggcc aaagaggcct agggaccatt tagttacat gaaaagcagt tcctattgga 60
aaggcaagtt aaatgtttct tttttgttgt tgttggttgt gttggtgaga gagtctcagt 120
ctgtctccat ggctagagtg cagtgggtgca atctcagctc actgcaacca cagcctctcg 180
ag                                           182

```

<210> 1276

<211> 115

<212> DNA

<213> Homo sapiens

<400> 1276

```

gaattcggcc aaagaggcct attttttttc cctgaacta ttggaattct tatgggcttc 60
tataacttat aaaacatata catgcatata aattttccag tgaacattac tcgag 115

```

<210> 1277

<211> 320

<212> DNA

<213> Homo sapiens

<400> 1277

```

gaattcggcc aaagaggcct agatggtttt gaactggaac tgtggaccca tccacagacg 60
tctatggggt ccagtgtgtg ttacaatttc aacctgggaa agccattctt catcttcctg 120
tccactatgg tcagaagcta aactgtcgtg agacccatgt cgagtaatgg gcccaggact 180
tccaggggga accaggccag caagcaggaa ctgataatac tgtactgcat ctgcagcgag 240
gagcagaggg tggtttgcac taaacggtgg ctgcaattca ttccattgag gggtttctaac 300
cagagtcacg ctggctcgag                                           320

```

<210> 1278

<211> 436

<212> DNA

<213> Homo sapiens

<400> 1278

```

gaattcgcgg ccgcgtcgac taaaattttt caccagagta aacttgagaa accaactgga 60
ccttgagtat tgtacatttt gcctcgtgga cccaaaggta gcaatttgaa acatgaggag 120
tacgattcta ctgttttgtc ttctaggatc aactcggtea ttaccacagc tcaaacctgc 180
tttgggactc cctcccacaa aactggctcc ggatcaggga acactaccaa accaacagca 240
gtcaaatcag gtcttttctt cttaaagtct gataccatta acacagatgc tcacactggg 300
gccagatctg catctgttaa atcctgctgc aggaatgaca cctgggtaccc agaccacccc 360
attgaccctg ggagggttga atgtacaaca gcaactgcac ccacatgtgt taccaatttt 420
tgccacacaa ctcgag                                           436

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<210> 1279

<211> 210

<212> DNA

<213> Homo sapiens

<400> 1279

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gaattcggcc aaagaggcct acacgttttg gttttgttat cctgggtcac atcctccacc 60

```

gtggtgagga gaggtggtga gggcagcgtg ctggtgtctt gctctccact gctgtgtttc 120
 cttctctgct tgacagcagc aacgaggtca ggccctgaaa acatggagaa caagctgtcc 180
 ccgttggtg aggatgtctc atcactcgag 210

<210> 1280

<211> 309

<212> DNA

<213> Homo sapiens

<400> 1280

gaattcggcc aaagaggcct atcgattgaa ttctagacct gcctcgagat ggggtgctgcg 60
 gctctcacgc ccgtttcaca gatgggaacc tgcatacacag gcatgcagct ccgggttggc 120
 tcctcacccc ctccatgctg gcttgacacag gctaccagca tgggtgtgtac acgtgtgtgt 180
 gtgtgtctgt gtgtatcatg gtgtgtgacc tgtgtctgtc tgtactcctg ttatttatat 240
 ccctttgctg gttgtgctaa aagcatagat ttaaatcata caagatgtaa tttagatggc 300
 tcactcgag 309

<210> 1281

<211> 322

<212> DNA

<213> Homo sapiens

<400> 1281

gaattcggcc aaagaggcct aggaataata attgttgaaa agggtcctgc attttcattt 60
 tacataaggc cctgtgcatt atgtagttgg tcctaagaac atataattttt gcaacattaa 120
 agatcaagat ttcttttaac ccaaattgta gggaaaaatg aattactatc cctataactg 180
 tacttttttt tcttttttct tcctttcttt tttgagacag agtctcgctc tgtcaccagg 240
 ttggagtga gtggcgcaat ctcagctcac tccaacctct gcctcccagg ttcaagcgat 300
 tctcctgtct cagcctctcg ag 322

<210> 1282

<211> 166

<212> DNA

<213> Homo sapiens

<400> 1282

gaattcggcc aaagaggcct acacctgttc ccttttactt ttttaagcgc gcctgctata 60
 aaatatgaaa ttgcctgcat ggctcccat catggatcct attacatttc tatctgccag 120
 tgtaggttgg tgcagtcaca agacaatgct tcaggagaaa ctcgag 166

<210> 1283

<211> 346

<212> DNA

<213> Homo sapiens

<400> 1283

gaattcggcc aaagaggcct aattgaattc tagacctgca cgacacacac acgctctcca 60
 gtcccgggac tggagagcgt gtgtgtgtcg tgcaggcaga atgagtttgg ggaggaagcg 120
 ttgagagtgt ccaggaagaa ttgtgtcttt tttggagaga ccggaggtag gtgaagggat 180
 cctgaaggca gagactgtgt tcaggtggca ctgttttttt ggggggaggg ggggggcaat 240
 tggtagggcc ccacagcagt gaaaaggtag tcagaagtgg agtgggatcc ccgagcgagg 300
 tgtcagtgtc tgtggggggg ggataaatcc agtgcggtta ctcgag 346

<210> 1284

<211> 177

<212> DNA

<213> Homo sapiens

<400> 1284

ggtgccatat tttggggtag tgtgttctgg actccatcag ataggggttc ttgtggatcat 60

ctgtccagat tatctagatt tatagttaag taaaatagac atatatctat ttccctaaaa 120
 agtattattc gaagacagag acgaggaagg ttacccaaaat agatgggcag gctcgag 177

<210> 1285
 <211> 410
 <212> DNA
 <213> Homo sapiens

<400> 1285
 gaattcggcc aaagaggcct agtcctgccc ccaaaattta caccataaat ttctgccata 60
 cttcactact cttctcatt tttgttttc cattattaat ataaaaagcc aggaatgtga 120
 ggtcttctga gaaagctgca ccatggtcaa gccattgtaa cctctgtgac ccacacgtat 180
 acatccagaa ggctcctgg agccagaaag tctaggacaa caggaaaacc acaaaagaag 240
 aaaaacagct agctgctgtc ttagcttatt agccaacctt gcaacattct accattgtaa 300
 cagactctac cctaactgat ctatcaacct tgtgacattg tgccctgtga cccttcccgc 360
 ctgtgacccc ttccccctca atagatgagc aggtctagaa ttcaatcgag 410

<210> 1286
 <211> 143
 <212> DNA
 <213> Homo sapiens

<400> 1286
 gaattcggcc aaagaggcct agtctatttc caaagcttta ttgtattcat tcatagcatc 60
 cacatggcgt ccaactttta aatagtcaac tccgatcttc acacatttta aagcccaaga 120
 tgcggattgt ttctttactc gag 143

<210> 1287
 <211> 741
 <212> DNA
 <213> Homo sapiens

<400> 1287
 gaattcggcc aaagaggcct aaccttggga gctaagtagt tgctgcactt gaccactatg 60
 aagattgggt tgggaagggt ccttttggat gcacttgagc agggccccta atccctgggt 120
 cacaggcctg tattgggcca cacggcagga gatgggacca tctagttgca gaaaaacaag 180
 ctcaggactc ccactgattc tacattatgc ctcagctgag atgtctcacc tcaactctta 240
 tgatgcaacg agaagcccct tgggagcggt tcagtcccac tctatactcc tgtcattgtg 300
 ctcatcacag tctggcttcc caaaatcaaa ttccctgggtc aaaaattgtc ttccctgac 360
 ctggcttttg gatgccacag aaggcccctg gagcaccag aagagaggta aacaggatta 420
 cctgacacag ttaggtacat gggattacca aaatgatctt taatattcct caggttatat 480
 tttaggggaat aatattaata tatgttccaa agttgtatgg gatttctaaa attctaagt 540
 ctgagtatat gctatcgatc acaattaagg ttgttaagtt attgtaaact atggagataa 600
 ccaaagtgtat ttgtcagttg tgtttctgac tgtaactacc ctggacattt tgttattcat 660
 agacaattgt tgtcttgttt tgatcctctt caaaggatgg ttataatca gctacagaac 720
 ttcaccaggc gccttctcga g 741

<210> 1288
 <211> 171
 <212> DNA
 <213> Homo sapiens

<400> 1288
 gaattcggcc aaagaggcct aggtctgggt atctgggcct ttagtttttc tatgctgtca 60
 catcctaatt ctgtcatgcc atccatgaac tcctgttttg agaactcgca ctgtgttgct 120
 gctctgaact tccatgcaat aatcaacaca ctaatgctgg ctgttctcga g 171

<210> 1289
 <211> 132
 <212> DNA

<213> Homo sapiens

<400> 1289

gaattcggcc aaagaggcct agtgcgggag tccatgaaaa tacatacact agcagccatt 60
gtaagggtcta tctcattatg ttgccaacac ttggaagtct gggcaagcat cccgtttctg 120
cgcccgcctcg ag 132

<210> 1290

<211> 195

<212> DNA

<213> Homo sapiens

<400> 1290

gaaattcggc caaagaggcc taatcacaaag ggggtatatt aatttatttt tatttctcta 60
tctctctatt ccactgtacc aactaaaggc taggggtttt ttgtgttttt tttgtttttt 120
ttacttatac ttgacaatag tagaacacct aggaaaatcc actgctacat gattgattta 180
gtaagagttc tcgag 195

<210> 1291

<211> 327

<212> DNA

<213> Homo sapiens

<400> 1291

gaattcggcc aaagaggcct agtaaaagtt tatctttttt tcctgatgat gtttagagtt 60
tggaagagttc tctttttgtt tgtttttaca ggtgggtatag ttaggggtcaa agaactggac 120
tggtctgaagg acgacctctg cacaggtgtg tgtttctctc ggacgtcccc cagtatgatt 180
cagtgaattcc tttgtaatac ctcagtgtcc ctggctctgt ggtcttgaca gagctgtagt 240
cccagctgct gccacagtcc catcggcgca tggcagcttc tctccattgg ccgatgagca 300
ccaactgtca ttctccgagg cctcag 327

<210> 1292

<211> 598

<212> DNA

<213> Homo sapiens

<400> 1292

gaattcggcc aaagaggcct agaagataaa ctgaaacttc tctgccttcc cgctgcaaga 60
gtgaatgagc gatccctctc aactgactca aaatgtttgc ctcacccagg agatggagct 120
ctcgaaggcc ttctctggcc agcggacact cctatctgcc atcctcagca tgctatcact 180
cagcttctcc acaacatccc tgctcagcaa ctactggttt gtgggcacac agaaggtgcc 240
caagcccctg tgcgagaaag gtctggcagc caagtgttt gacatgccag tgtccctgga 300
tggagatacc aacacatcca cccaggaggt ggtacaatac aactgggaga ctggggatga 360
ccggttctcc ttccggagct tccggagtgg catgtggcta tcctgtgagg aaactgtgga 420
agaaccagca ctgtctccatc cccagtcctg gaaacaattt agagcccttc ggtccagtgg 480
tacagcggca gcaaaagggg agaggtgccg aagtttcatt gaacttacac caccagccaa 540
gagagaaatc ctatggttat ccctgggaac gcagatcacc tacatcggac gtctcgag 598

<210> 1293

<211> 256

<212> DNA

<213> Homo sapiens

<400> 1293

gaattcggcc aaagaggcct agaggcactt acaactttaa acttcccttt gagtattgct 60
tttgagtat cccataggtt ttgttatgtt gtttccactt acatttgttt caagaaattt 120
ttcagtttcc tttttaattt cttcatggac ccactgggtc ttcagtagca tattgtttta 180
tttccacgta ttgtattcc tcttgattatt aatttctagt ttatttccat tgtggtcaga 240
gaagatgcat ctcgag 256

<210> 1294
 <211> 300
 <212> DNA
 <213> Homo sapiens

<400> 1294
 gaattcggcc aaagaggcct agggcctccc aaagtgctgg gattacaggc atgagccact 60
 gtgcctggcc atttgccata acttttaatg agagggtagt tccagctaca gattgaggta 120
 gtatgcgaat aaggatagaa agtggatata aaagtatttt tgttactttt taagaaagaa 180
 ttatcagaag gctcaaatc tgataatttt agctaatagt attctaccta agaagtaaac 240
 aaaggccag aaattagatg atatgtccaa ggacatagta aatggggagc caggctcgag 300

<210> 1295
 <211> 153
 <212> DNA
 <213> Homo sapiens

<400> 1295
 gaattcggcc aaagaggcct agctagtgtg tcaagtatat ttttaattata ctaatataat 60
 ctcaacatat ttaacacaca catattttgg ttcattattt atgtaagcat gattacctcc 120
 tctgtggtca cttacagttc ccacacactc gag 153

<210> 1296
 <211> 269
 <212> DNA
 <213> Homo sapiens

<400> 1296
 gaattcggcc aaagaggcct acacgtttta atctgcagat ggacataagt ggattaattc 60
 ctggctctagt gtctacattc atacttttgt ctattagtga tccactacgga cgaaaattcc 120
 ctatgatattt gtcttccgtt ggtgctcttg caaccagcgt ttggctctgt ttgctttgct 180
 attttgctt tccattccag cttttgattg catctacctt cattggtgca ttttggtgca 240
 attataccac attttgggga gccctcgag 269

<210> 1297
 <211> 577
 <212> DNA
 <213> Homo sapiens

<400> 1297
 gaattcgcgg ccgcgtcgac cttatctttt ggagcaaatt gacatgctgt tttttggtgg 60
 ttctgctgtg tctgggataa cctcggctgt ttacagtgtg gcccgagcgc tcttggtctgc 120
 cgccctgctc cagcagctct gcttcagtgc agtgaaggaa ccgtggagca tgcaacacat 180
 cccggcactg ttttcggcct tctgtggcct cttggtcgcc ctttcttacc atctgagccg 240
 tcagagcagt gacctatctg tactcatgtc cttcatccaa tgcaggctgt ttcctaaatt 300
 tttacatcaa aatctggcag agtcagctgc tgacctctc cccaagaaga tgaaagattc 360
 agtgacggat gtcttaaaat gggatctcat cgtctgcgca gtggttgctg tcctctcatt 420
 tgcagtcagc gccagcactg tattcctgtc attgcgacca tttctcagca tcgtgctgtt 480
 tgccttggtt ggagccgtgg ggtttgtaac acattacgtg ctccctcagc tccgcaagca 540
 tcatccctgg atgtggattt cacaccccat actcgag 577

<210> 1298
 <211> 431
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (147)

<220>
 <221> unsure
 <222> (225)

<220>
 <221> unsure
 <222> (241)

<220>
 <221> unsure
 <222> (273)

<400> 1298
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 cagccccagg aggaggggca gatagctaca ggcccccca acccgctcta ggagagcagg 120
 aggggcacgc acagggtcggc tcttccntcc tccacccgag cactccagag agctggagct 180
 gggcatcccc ggttgggtgg tgacctggc tgtgtggcct gcacntgatg cagcatgtat 240
 ntcacacaga gctggccaag ctcttgcgat ctnttctaga gtgagtgaga tcagacggat 300
 gcttccaggc ctgcacacgg ggcagcatga gcagcagtg accagcgtgg cctcagccc 360
 tttgcaggct gctgcagtga ggcagggaac aacttgact cctggcccaa gagctgggtc 420
 tgccactcga g 431

<210> 1299
 <211> 378
 <212> DNA
 <213> Homo sapiens

<400> 1299
 gaattcggcc aaagaggcct agaagtggac caaagggtcta cctcatgctc attctgcctg 60
 tttggaagag ctttaagcgca gctatgagtt ctatcggtac tttgaaactc agcaccagtc 120
 agtaccgcag tgtttatcca aaactcaaca gaagtcaaga gaactgaata atgttcacac 180
 agcagtgcgt agcttgcagc tccatctgaa agcattactg aatgaggtaa taattcttga 240
 agatgaactt gaaaagcttg tttgtactaa agaaacacaa gaactagtgt cagaggctta 300
 tcccatccta gaacagaaat taaagttgat tcagccccac gttcaagcaa gcaacaattg 360
 ctgggaagaa agctcgag 378

<210> 1300
 <211> 367
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (356)

<400> 1300
 gaattcggcc aaagaggcct aagttaaggc ttgagaagct ctgaataatt caaaagtatt 60
 agaccacac agccttggag agaccttcag aaactaagga ggagttttat attaagggag 120
 acattttagt cagtaagacg atataacctt cttactccgt aaggggaaat gaaggcccg 180
 agaagggaag ggacttgacc gaggtccac ttctgtttcg aggcagaagc cagactaatt 240
 ttcatgcctc ctgactccca atcagtttca caaagggtt caatctgttt atatacgta 300
 cattctgga tacgaggtct tttgatgttc agagtaactg actagttagt attagnagac 360
 cctcgag 367

<210> 1301
 <211> 1006
 <212> DNA
 <213> Homo sapiens

<400> 1301

```

gaattcggcc aaagaggcct aatgtcttcc tatgttccca tatttgagaa ggatagggtat 60
tctggagaaa atggagacaa ttttaacagg actccagctt catcatcaga aatggatgat 120
ggaccttctc gaagagatca ttcatgaaa agtggatttg cctctgggcg gaattttgga 180
aacagagatg ctggtgagtg taataagcga gataatacat ccacaatggg tggttttgga 240
gttggaaaaga gttttgaaa cagaggtttt tcaaacagca ggtttgaaga tgggtgatagc 300
tctggtttct ggagagagtc tagtaatgac tgcgaagata atccaacacg gaacagaggg 360
ttttccaaga gaggcgataa tgacttagac ccagacgaat gtatgcagcg cactggtggc 420
ctttttggtt ctagaagacc agtattaagt ggcacaggta atggtgatac ttctcaaagc 480
agaagtggca gtggaagtga acgaggtggt taaaaagggt taaatgaaga agtaataaca 540
ggctctggaa agaattcttg gaagtcagaa gcagaaggag gagaaagtag tgataactcaa 600
ggaccaaag tgacctacat acccctcct ccacctgagg atgaggactc catctttgca 660
cattatcaga caggcataaa ctctgacaaa tacgacacta ttcttggtga agtgctctgga 720
catgatgcac caccagcaat tctgactttt gaagaagcta atctctgtca gacactgaat 780
aacaacattg ctaaagctgg ttataactaag cttactcctg tgcaaaaata cagtattcct 840
atcatacttg caggacgaga ttgatggct tgcgctcaaa cagggtctgg gaagactcgc 900
gcttttctcc taccaatttt ggctcatatg atgcatgatg gaataactgc cagtcgtttt 960
aaagagtgc aggaaccaga gtgtattatt gtagcaccaa ctcgag 1006

```

<210> 1302

<211> 596

<212> DNA

<213> Homo sapiens

<400> 1302

```

gaattcggcc aaagaggcct agggagaagg agaaccgcac cacgatggaa agggaaagag 60
ccctgcagga gctggaggaa gaaacagcca gacttgaaag gaagaataag acgttgggtc 120
acagtataac agaacttcaa caaaagctta caaggaaatc acaaaagata accaattgtg 180
aacaagcag tccagatgga gccctagaag agacaaaggt taagttacaa cagctggaag 240
cttcttatgc atgccaaag aaggagctgc tcaaggtaat gaaggagtat gcatttgtga 300
cccagctctg tgaagatcaa gccctctaca taaagaagta ccaggaaaacg ttgaagaaaa 360
tagaagaaga actagaggct ctgttccttg agagagaagt atcaaaactc gtgagcatga 420
accctgtgga aaaagagcat accagccaaa ataatgaggg tactctacc caaaagacag 480
caagattatt cagtaaaaag attttttgcgt gtctcttttt catcaccccta tttttcatca 540
gactgctgag ctacatgttt ttcatgtaa gattcataaa tccagctctc ctcgag 596

```

<210> 1303

<211> 117

<212> DNA

<213> Homo sapiens

<400> 1303

```

gaattcggcc aaagaggcct aaggaattat agaagagtta taaagttcta ttgaagacat 60
tgagtatagg caatgtctgt aaagaaagag aaagaggcac aaggcaaagt tctcgag 117

```

<210> 1304

<211> 123

<212> DNA

<213> Homo sapiens

<400> 1304

```

gaattcggcc aaagaggcct acgagtctgt tgtgccttct tcttcttctt gcttttttgg 60
ctgtccacc tcattggcag tgggctgcat tgcttcatta tgctcttctt ccaatatctc 120
gag 123

```

<210> 1305

<211> 140

<212> DNA

<213> Homo sapiens

<400> 1305

```

gaattcggcc aaagaggcct aactgggtccc caccaatctt ccagaagatt tttaggagac 60
gtagaatact gagaaaataa ggtgagtagc attcaagaat taaggtaagg atcttcatga 120
aaacttgctg gatcctcgag                                     140

```

```

<210> 1306
<211> 332
<212> DNA
<213> Homo sapiens

```

```

<400> 1306
gaattcgcgg ccgcgtcgac cagattgact gaaaagtcac atgaagagtt gattgtcttt 60
taatgggtatg ttttaaacag ctgacatttt aaattttgat gaaatccagt ttattcggtt 120
gttctttttat gctttgggtg ttgcatccga gaaatctttt cccatcccc cttctcaacc 180
ccacctctcc tgtaaccccc ttcccttgg ccgatgagcc ggggcccttt aacctcttt 240
ccatgggaagt cactttacag ctgcatcggt cctcctactc cactgagtgt gggaggccca 300
aacggctgcc cactgacccc taccactcgt ag                                     332

```

```

<210> 1307
<211> 314
<212> DNA
<213> Homo sapiens

```

```

<400> 1307
gaattcgcgg ccgcgtcgac cgattgaatt ctagacctgc ctcgagacca tgggagggtt 60
tggtttgtaaa atcatagaac agatcctgaa gcagaataag acataccccc tgctcttgct 120
cttacccttc cagaagagtt ggccatgact tgattatctc caagacaaca gtgactccta 180
gatgtgtctt cagccccctgc cttttgtgac atcatttgca ttttttcaat tgcccaccag 240
aggtggccac tgggttttca ttttgggttg cgtataccta acctaattcc ttctctgatt 300
cccccaaact cgag                                     314

```

```

<210> 1308
<211> 332
<212> DNA
<213> Homo sapiens

```

```

<400> 1308
gaattcgcgg ccgcgtcgac ggggcagatc ttcagaagaa cgaagttcag cacagtccca 60
ctggagccag ggagcactgg gactaacttc aaggcttctg attccttgat ataagagtgt 120
gagtcaatct tagactcttt taaagagaaa atggtcagta acctatcact acaacaact 180
ggggatgcag ataagtattt gtgaaaaaca gaagttcttg agactggttc aaatctcagc 240
tacttcaatt accatgggac aaatgtactc ttctgaaact tcggtttcct catctgtaaa 300
atggagatgt agcaccttag agggctctcg ag                                     332

```

```

<210> 1309
<211> 232
<212> DNA
<213> Homo sapiens

```

```

<400> 1309
gaattcgcgg ccgcgtcgac tagcgagacc ctgtctcaaa aataaatata tgaataaatt 60
gaatttaact gtgcctaact atagtttacc atgccacccc tttggggtgt gcagtgcagc 120
aggcccagaa ccccttgctt tgcaaaatgc agctttttgt ggtccccaca cttgcctagt 180
aaccgccgtt ttgttttgtt ttgtgtttgc ttccagaact ccaagactcg ag                                     232

```

```

<210> 1310
<211> 209
<212> DNA
<213> Homo sapiens

```

```

<400> 1310

```

```

gaattcgcgg ccgcgtcgac ctaaaccgtc gattgaattc tagacctgcc tcgagtaaaa 60
tggttgaaac ctggttctgt ctgtccctcag ccaggctcgtt ttttttaaata ttttatttta 120
ttttatttta ttgtatttta ttttatttta ttttatttta ttttatttta tttagacgag 180
aatttcgttc tgttgcccag gccctcgag 209

```

<210> 1311

<211> 128

<212> DNA

<213> Homo sapiens

<400> 1311

```

gaattcgcgg ccgcgtcgac acggcttgat aagtatctca ggatattctg caggaaatcag 60
ttctgtttct acaaagtcct gtattcccat tcagcatgat atggctgaat atgtgtgtgc 120
tgctcgag 128

```

<210> 1312

<211> 368

<212> DNA

<213> Homo sapiens

<400> 1312

```

gaattcgcgg ccgcgtcgac agcaaacata cagtgaacct ggcttttata tttgtctata 60
tagttaactt tattggaaat ctttattttt tcctccagat tagagtctag tttgttttta 120
tttcaccttt aaagacaccc tttagtgcct cctgtatagc aggccttagta gtaacaaact 180
cttcagcatt tgtttatctg ggattaactc catttctctt tcattttgaa ggactgtttt 240
accagctaga gaattctcag atgatatgtt ttttctttca gcaatttata tatgtcatcc 300
atctgtcttc aggccttcaa ttgatttcta aggagatata agctcctaata attaatgag 360
atctcgag 368

```

<210> 1313

<211> 181

<212> DNA

<213> Homo sapiens

<400> 1313

```

gaattcgcgg ccgcgtcgac ttgccttata gcttgtaagg cagaaaagca gagtgaaaag 60
aataactaatt tcgggaattc agccttttgt accctggctc tgccagttct ggctgtgtga 120
ccctgggcaa gtttcctttg cacctcgggt tcccactgt aatagtagtg tgccctcga 180
g 181

```

<210> 1314

<211> 164

<212> DNA

<213> Homo sapiens

<400> 1314

```

gaattcgcgg ccgcgtcgac gacggcttgg agaaagggtta gaattttttt ttttccttaa 60
ggtttgaaag tcttaaccat ttggttgaa agttttgggt taatcccacg cagagacttt 120
taaacatggt cacacattcg tatttaagaa aggcggttct cgag 164

```

<210> 1315

<211> 125

<212> DNA

<213> Homo sapiens

<400> 1315

```

gaattcgcgg ccgcgtcgac gcttagatgt atctattagg acttatcatg aaattgttag 60
aaacatccag agaagaaaat aggaatgaag agcattatgt tcctgtttta tcaactcaac 120
tcgag 125

```

<210> 1316
 <211> 167
 <212> DNA
 <213> Homo sapiens

<400> 1316
 gaattcgcgg ccgcgtcgac gttactggta agatgcaatt tcttctcctg gccatgggtgg 60
 aaaggaggaa gaaggctatt gttctgttgc ttcattggat atctgcttgg gtaatagttt 120
 tactgatttg gcttaggtct ctgagcaaaa agggaattgc actcgag 167

<210> 1317
 <211> 470
 <212> DNA
 <213> Homo sapiens

<400> 1317
 gaattcgcgg ccgcgtcgac ctcggggggc tttcttttat taagatttaa tttctgctac 60
 tttcttcaac aagctaagca aagccaggta tatataattt tcaagaacaa aagaataaagc 120
 aggacaagga aatgaaacta ctgaccaccc ttcaattttg ttccactatt taactgatga 180
 gttattgcac attgtaaaaa aaaaaaaaaa tgcctattac aataccacac taccctgtta 240
 cagatcacaa aataagggag aagggtatttc cattttttta acaaaaatata aaactgttac 300
 tcttaaacca gataaagagc aatacatgtg cgactaatat tcataaatta acactctgaa 360
 gctaactacc tgctattcaa aggaaaagca ttagaaaaat actgaaaaac aggtaaatct 420
 ctacatcacc catatggggac agaaatgcaa agaacactac gttcctcgag 470

<210> 1318
 <211> 981
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (196)

<220>
 <221> unsure
 <222> (228)

<220>
 <221> unsure
 <222> (595)

<220>
 <221> unsure
 <222> (604)

<220>
 <221> unsure
 <222> (615)

<400> 1318
 gaattcgcgg ccgcgtcgac caaggttacc acaaagtaac cttcttcagg cagattttct 60
 gctcaaattc atcctacctg aatggttcag tggctcctgga ctgggagagc cacctatgtg 120
 tgggatagaa gcaaacacaa attccttctg tagaaagaca cttttatcct agccctgaaa 180
 taatactctc aaatanTTTT tctagggcag taagtaccag tcactaanaa taacctatgtg 240
 tgcaaagaaa caaattactc tgaacaagaa ttagtagaaa caacaatgaa gtgaaatata 300
 cctacaaaga ctttttatat tagaattata agacaactat acttattgtg tttaaagaca 360
 taaaaggctg aaaacctctg caggaaacta cacaaagatt tgaaaaagtg tcaaaaagaat 420
 ttctaaaatg gaaagatata atatagaaat ttaaaaactt agtggatggg tggtttaact 480
 aaaaaatttg ttagaatata ttatccagca ttagcatag ggggttaaga gggttaaacac 540

```

ggaagaaaga ttatgaaaaa tggagaatgg agagaaaaga tctaactgtag ttttnactgg 600
agtnatagag tgagnatagg gcaaacatag aacagagggtg atatttgaag aaataatgag 660
tgataatatt ctagaactga ttaaaaacac tagcctgcag tttcaagaag cctaacaaat 720
cccaagcagg .ataaataaaa tctctaattct agatacatca aagacaaact tcagaccaga 780
gacaaagaga aaaatcataa agatagctag agaaacatta gaataccttc aaagatacaa 840
tagtttagatt gacagttgac ttctcaacaa cagtgggaagc cagtagagtg ctatcttgaa 900
tgttgatgaa ggacaataac tgcctaccta ggattctaaa cccagtgaag atatatgtca 960
gaatgagggc taaaactcga g 981

```

<210> 1319

<211> 497

<212> DNA

<213> Homo sapiens

<400> 1319

```

gaattcgcgg ccgcgtcgac gtcgcctggc taatatTTTT aatttcttgt agagacaggg 60
tctcactatg ttaccaggc tgggtctcaa ctcccggact caagcaatcc tcctgccttg 120
gcttcccaaa atgttggcgt tataggcatg agccactgca gcttggcaag ggaaaccttt 180
tatctagaaa ctgccgtgct aagataagcc atataagtaa gaattttttt tgagaatata 240
agaattatat ctaattactt gaatgtgctg aatttcagta acttttgggt ctgcacaatc 300
tgtcaaagat aacagaatat attaggccca tagcacaaga gagaatatgc ttccaattat 360
tttaaatgaaa tgggttttta atgagtgaat aaaatatcat aaattgtcag aaaaagtaac 420
ctaattgaaa gaacaaatac ctgaactcct aaaaaggcca tcacgatgga gttgatgggt 480
cccgggatgc cctcgag 497

```

<210> 1320

<211> 189

<212> DNA

<213> Homo sapiens

<400> 1320

```

gaattcgcgg ccgcgtcgac gagactgtgg ttgaatgaca ggccttttct tgtttgtaca 60
tataaagcct gattggactt ttgcagatcc tgggttttcta attatttttg ctctacctct 120
ttgtggctta ccttgcttag ttttagaatc atcatgtaca gggattttac tttcttcttt 180
ttctctcgag 189

```

<210> 1321

<211> 205

<212> DNA

<213> Homo sapiens

<400> 1321

```

gaattcgcgg ccgcgtcgac tcgattgaat tctagacctg cctcgaggag agaactggga 60
acgtaattctt tgagccgaag cttgcaggat caattatact ttatctgata gagaaagtgg 120
gacaagtcac gtggagagct ggttcttttag gaaaattata attggtggca aatgtcaact 180
gtgtctggag atagggctac tcgag 205

```

<210> 1322

<211> 195

<212> DNA

<213> Homo sapiens

<400> 1322

```

gaattcgcgg ccgcgtcgac ctgtgcagtg agtgaagaca gagaaaagtt ccaagagaaa 60
ctccttcttg ctagagaact agaaaagatg atgaatggga gagggacaat ggggaggggt 120
ggatatctgg taatttttct tctctctcag ctctgcctca aagcaagccc caatcctgag 180
tctgcacacc tcgag 195

```

<210> 1323

<211> 475

<212> DNA

<213> Homo sapiens

<400> 1323

```
gaattcgcgg ccgcgtcgac tggggctctc aaacacatca aagcctgcta agtctccaat 60
tctccctgtg aagcaagaca cccctgtgtt cagtggcatt tggcaaggat cctgagggtca 120
cagcctggtt ttgtgatgtg gtgataatga ctctaagtag tgaacgcca agattttata 180
ttctgcctgc aaatcatgat gggttctaata gacacagcat ataaaagtgc tcaagtattg 240
ctttgccacc tccactgctc attaacttaa cttggtagga gtttcttgat ggaagacaat 300
caaacatttt tatgaatgag tcacaaatac tatcacactg attctttggc aaatataatt 360
cttattgttt tataagaaaa cagtcatac ctgcaataga ctgatgtttg tgctctctc 420
acccccaacc aaatttatat gttgaaatgt tgaaattcta acccctaggc tcgag 475
```

<210> 1324

<211> 167

<212> DNA

<213> Homo sapiens

<400> 1324

```
gaattcgcgg ccgcgtcgac aaacgcgtga ttgaattcct gctgattccg tctgaacttc 60
accaagggtg tccagctgct cttgcatctg gttcctggta acagttacat cgtattctaa 120
cttatcatat tctctccatg ctctgtccaa ttcggcagtg gctcgag 167
```

<210> 1325

<211> 786

<212> DNA

<213> Homo sapiens

<400> 1325

```
gaattcgcgg ccgcgtcgac cgctgagacg gtttggcggg gagtcctggg ccagggggag 60
ctgaaaggcc cgcaaccggg gaaacgtcaa aacaaacaga aggacttggg attccggagc 120
agtcgccccct atcgctgctc ctgcagttgc ggacgccacc gaccccgccg ccggaggact 180
gggcactgaa aggcctctag gcctaggcgc gggccgcgga gccagacgtg ttgctgccgt 240
gagtaaaacg agcgccctct ccgcactcgt ttacaaatta aaatggagga aatttcgttg 300
gccaacctgg atactaacaa gctagaggcc atcgctcagg agatttacgt agacctgata 360
gaggattctt gtttgggatt ctgctttgag gtgcaccggg cagtcaagtg tggctacttc 420
tacctggagt tcgcagagac tggtagcgtg aaggattttg gcattcagcc agtggaagac 480
aaaggagcgt gccgcctccc gctttgctcc cttcccgag aaactgggaa tgggcctgat 540
cagcagctcc agcgctcacc tccggaattc cagtagctgc aaaatgagag tctgaaagtg 600
gccaggacaa taacatagac tggtcctgtg gcttcgagga gtaagctaag tagaaaaaag 660
tagaaaaatc agacaaaagt ttaattccc ccttgaagat cctagcattt aaaaacccaa 720
agtggataat cttaggaatcc tttttttaa gtgtattacc tggagcaagc tcagaagccc 780
ctcgag 786
```

<210> 1326

<211> 339

<212> DNA

<213> Homo sapiens

<400> 1326

```
gaattcgcgg ccgcgtcgac ctatcctagg taatttcagg tactttctct tatgcaatta 60
attttattaa ctgatttctg gtctatctcc agagataaaa taccattcct tcacaactgt 120
attgtctgga agcccatga gatggtaatt ataggccttc tactagccag cagttctctc 180
tggaactgga catcagcagg tctccttttt cttgtgctgc ttggacaggt acctaccgt 240
ggcctcttca gtggccacaa tctcagtc tccctgctg gtttggagac tcatgagcac 300
cccaggcagc tcaagctgaa taaatagctg caactcgag 339
```

<210> 1327

<211> 299

<212> DNA

<213> Homo sapiens

<400> 1327

```
gaattcgcgg ccgcgtcgac aataaccaa atatagatat tgcaggctag agctgggcaa 60
ttattcaggg ggagggtgtc tgttgtgtt gtttaaaacc aaagcaattc cactgtccc 120
tgtgaaattt caaacctctc ccatataatt cagtgcattt aatctgaatg gcatcttttt 180
ggcttaatca tattttgcct tgtttctttg ttaactgttt gagtttgatg gagtttgatg 240
ggctttctcc aacaaatgat cttttcccat ctgtgatttt ctctcctgta gacctcgag 299
```

<210> 1328

<211> 294

<212> DNA

<213> Homo sapiens

<400> 1328

```
gaattcgcgg ccgcgtcgac aggtcccaa ttaattcata attagaatat ttcgtgtttt 60
tccagtataa cagttctata atctttgatt ataacctttg tgtaaatcc tataagtatt 120
gagtcaaagg agacacacat cttttcaggc attacatata aaataaatac taaactagac 180
tccaggaaaag tggatcaat tcacattccc aatagcactg tcccaatggg gctaatttat 240
ctccttttta atctcagcgt atttccagtt ataacatacc atctttacct cgag 294
```

<210> 1329

<211> 174

<212> DNA

<213> Homo sapiens

<400> 1329

```
gaattcgcgg ccgcgtcgac cactaccgta gttattttta agatgattgc agggagggtt 60
ctgctgttcc tggtcctgtt ttctgtcttt tcgcagggtg cagttttggc ctctgggggt 120
gttcctgagg ctccgggtgc agatcttget gcggtcgctg ttcctggggt cgag 174
```

<210> 1330

<211> 476

<212> DNA

<213> Homo sapiens

<400> 1330

```
gaattcgcgg ccgcgtcgac ggggtgatgtg tgatcatgtc aatccaaaca gcagacacga 60
aagctcagag gaaataacgg cacccttggg ctctgatgta agactggctt tgggggaggg 120
cgtgcacgaa gaaaaggata ggaatatcac tcttctcctg aggggaacac ggacagacat 180
ggaagccaca tgaactgaag aaatccatca gagtaagagg aatgtcaggg gcaatacact 240
gaaaagggca ggtcaggcag agaattgtga aactttaatg ccaggctaag aggggttcagc 300
ctctcctggg ttgatccag gaggcagaca gcaggacagc acctgggtgat tttcaaacgg 360
gtaaactcct agtgttcagg aaaactcaat tccaatccca agtacagtcg gtaattttta 420
agcacatgct ataaaggcat agtttcagca agtattcaat tcaccaaaca ctcgag 476
```

<210> 1331

<211> 749

<212> DNA

<213> Homo sapiens

<400> 1331

```
gaatgctgca gcttgatctt ggggtgaaag aatagaatgc agagctatca ctttatatcg 60
ttcagaataa aatcttctat catttgatag aagatcatac aactgctgaa tatgagcaag 120
tcctggtaaa aagatcaata ctgctccttc aatatttctg aattggggac ttttatctaa 180
gtatgcaaga agttccaaaa tgagatccag gttgatttta tgaggattca tgtatagaat 240
agcatgctga gtgcgggtgc tgtacttttg gtaaaatgga tttaaatcag catgtgctcc 300
agtctgaact gggatgtatt cctgatattt ttttattccc cctgctttgc ttgtaacatt 360
aatggttact tcttcttctc cttccagaaa tttctgacaa tattctgagt ctttttccag 420
tacaaagcct gtcttctcta ttatatcttc aagatgaaaa acctcaacag gataacttct 480
```

```

tcctgaaatt ctgagaatgg ggcagtggt gaaatatgta gaaaattttt cgctgtccac 540
agtggcactc attagaatca agtgtagatc agaacgtttc tgtaaaattt cttcaagat 600
aattagtagg aagtcctgact ggacacttct ttcatagaacc tcactacaa taacatgaga 660
cacattactt agaagaccat cttcttgaag ttcccttagc aaaaccctg ttgtacaata 720
gagtaacctg gtagattcac aagctcgag 749

```

<210> 1332

<211> 387

<212> DNA

<213> Homo sapiens

<400> 1332

```

gaattcgcgg ccgcgtcgac ttacaataga aaacactaat tacagtaatt aatgagagta 60
tggttaaata aatcatagta aatccttgta ttggaatact attcagcaaa ttaaagggt 120
atgtctacat aataaaatga tacagaaaaa tgtccaggat atcgtaatag aaaaaaatct 180
gcacacaaga gattttaagt caattttaaa caatattaag tctgatttta ttatgcaca 240
aaaataaaag ccagagtggc atcaccaaaa tgggagaata gaaagctctg gattctcctt 300
cctccaacag gcagtgtctc aataaacatc cctgtacact ccccatgtgt atatacaca 360
atatttctct aagatagttc cctcgag 387

```

<210> 1333

<211> 698

<212> DNA

<213> Homo sapiens

<400> 1333

```

gaattcgcgg ccgcgtcgac gttattttca tcttatatct ttcagtacac taattctctc 60
ttcagatgtg tctaacctgc tatttaaact cattcacttg agttaatttt acttactgat 120
tttctcagtt ctagaattta tatttggtta tttttagttt ccagttctct gccaaaaatc 180
tgtcttgtct tttatccctt tgaatgtggt aagtataatt atttcaaaag tctgtatctg 240
agaattccaa tatctagagg ctgtttgaac catcttttct tttcttgat gttgtttgtg 300
tatctgtttc cagttgcttt tgattataag ccagacattg catttgcaa ctagaaacaa 360
tttgtgacct tacatgatac cactttcttc caggaaggat ttacaattct gccagatgcc 420
taggggcact agcaatttag gaacctcaa tctaatttta gggactgaca tgattcaaag 480
ctgatctgca gcctcagtga gagtatgtct actcctggtt aaccttgct cctatggtgt 540
agcccttcag ggtcttgact caaaatgagt tatgttcac aggtgtcccc tccttagggg 600
ccatgggcac taatctctgc cccattact cccactagcc tgtaaaaagg gctgcttagg 660
ttttagcagc ttcctgcaga actggctaata atctcgag 698

```

<210> 1334

<211> 569

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (20)

<220>

<221> unsure

<222> (53)

<400> 1334

```

gaattcgcgg ccgcgtcgan ctgggtggatc atcttaggtc aggagttcga gancagcctg 60
gccaacatgg tgaatccca tcaactactaa aaatacaaaa aattagccag gtgtgggtgt 120
ggcgcctgt aatcccagct actcgggagg ttgaggcagg agaatcgctt gaaccaaga 180
gatggaggtt gcagttagcc gagattgagc cactgcactc cagcccgggc aacagagcaa 240
gatttgaatg aaataagctt ctacagtctg ctcatgacat tattggtctt tgagaaataa 300
gagttcatct agttacgtg aacttccaaa ggtggacacc attacattgt atattaaaat 360
acacacacac acacacacac acacacacac acacacacac acaaatttgt taatatcacc 420

```

```

acagccctct caacttagga gctggagttc ctacatagct gtacactctg aaggcatcct 480
gcctgtgcca gtacctggac tgaggcaccc ccgtaaagaa ggcttgctgc tctgacagca 540
tgtggactac atctgtaagc tgcctcgag                                     569

```

<210> 1335

<211> 571

<212> DNA

<213> Homo sapiens

<400> 1335

```

gaattcgcg cgcgctcgac gattgaattc tagacccttt cttccccac cttcaaacct 60
tctccgccc cctgtctttc ccatgggcat taatggcggc tccatttact caggccagaa 120
ccagaagagc cagcttcact ctctcacccc ctctacacaa tctgactaga aatcctgttg 180
accctacctt caatctgtgt ctaggatgca acacctcaac atgtccacac ccccttcat 240
ccctcacctg aacacctagg tctccctgcc ctccctaccc tcccagtcgc tgggtttccg 300
tacagcagcc acagggatcc tgtcgtttct gtgtccaaa ctgcacagcg gtcctcagt 360
ttacttgaaa taaaacgcca aagtccttac aatggctgca gagccggaca acccactggc 420
ctgcctagct gtctgacctg ctctcccttc cctctgttag ctgcattggc ctctgcaccg 480
gctgtgtctt atttgtaaaa caccctctcc aggcatttcc aggactgaac cttcagctc 540
tttcaaatct tctctcccaa gtcacctcga g                                     571

```

<210> 1336

<211> 370

<212> DNA

<213> Homo sapiens

<400> 1336

```

gaattcgcg cgcgctcgac gatccatctg tcttccgcac aggacaaaca ggatgggttca 60
atgggggatgt ggtgggaatc cccaatgtaa gagttaaaga ggaaagaaac acaaaatgtg 120
gcttaacagt taaagacaga tttattgtag agaaaataaa cctgagaggg gcttctggcc 180
gatttcagtc aggagcactt tctcttacag actaagagta tatattggtt ttagggtgaa 240
ggggcttatt acaagcttgg aatgtttctt tgtgggggag aagttttacg gtggagttaa 300
aatgtctctg ggcagagggg aggttatctt ggggctgaca tctttccggc cagaagaggt 360
ttatctcgag                                     370

```

<210> 1337

<211> 326

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (27)

<220>

<221> unsure

<222> (320)

<400> 1337

```

gaattcgcg cgcgctcgac gacctanaaa gtgaaagtag acagatttgg gtagtgcattg 60
caggctaatt aatgatccca ggtgggctgg agtggtcttg ttacattttc catgggtcca 120
gccctagagc agagaccatg ggcattcagc tgcccccttc cattatgttg ctcaagcacc 180
accacgtgcc aaagggcggg aacattagat ttccccaccg ctgtaacatc tgtaaattcc 240
acagtcata gaatcaaaat ggaagagaac ctcacgtttc tgattgccag tcagaaggaa 300
tttatatttg aaaccaatn ctcgag                                     326

```

<210> 1338

<211> 617

<212> DNA

<213> Homo sapiens

```

<400> 1338
gaattcggcc aaagaggcct aaaaggcata gacaacaaaa gaaattttat tgagaggaaa 60
acacaagtcc ttaaactgca aagatgtttg ccaggatgtc tgatctccat gttctgctgt 120
taatggctct ggtgggaaaag acagcctgtg ggttctccct gatgtcttta ttggaaagcc 180
tggaaccaga ctggaccctt gaccagtatg attacagcta cgaggattat aatcaggaag 240
agaacaccag tagcacactt acccacgctg agaatcctga ctggtactac actgaggacc 300
aagctgatcc atgccagccc aaccctctgt aacacggtgg ggactgcctc gtccatggga 360
gcaccttcac atgcagctgc ctggctcctt tctctgggaa taagtgtcag aaagtgcata 420
atacgtgcaa ggacaaccca tgtggccggg gccaatgtct cattaccag agtcctccct 480
actaccgctg tgtctgtaaa cacccttaca cagggtccag ctgctcccaa gtggttcctg 540
tatgcaggcc aaacccttgc cagaatgggg ctacctgctc ccggcataag cggagatcca 600
agttcacctg tctcgag                                     617

```

```

<210> 1339
<211> 792
<212> DNA
<213> Homo sapiens

```

```

<400> 1339
gagagtctca ctttgtcacc caggctgcag tacagtggcg cgatctcggc tcaactgcagc 60
cttaacttcc cgggctcaag cagtcctccc agccctaagt aaccactaat ctattttctg 120
tttctctctc ttaatttttt atattttatt tgtccctgaa gtttctgctg gttccccagc 180
tatgtctctc tccaccccag ggtcaactct ggggaggaga gattcaagga ggtacctgtc 240
tgctgcagaa cagtcctccc acctgaccca ggggagttca tccagcagca gacgagacta 300
acgaggcctc tggggcctgc cattgccagc tactctgtcc acttggtttc tctcatcaca 360
tatggcacat tcacacattt gatggagacc attcaagggc ctgagctgct gtgagggtcat 420
agcctctgcc gtggcagcct ggctgcagct ctagaatagg atgaagcagc tgtcatgcgc 480
tagaagaacc agacttggaa gcagcagagc agtttgctc ccagggtccac agatgcttgc 540
ttgaatgagt gtctgagctt cagggtcttt tatctgtaaa atggtgataa tcaactttac 600
ctttcatggt ggttgtaaaa attaaggtaa cagaagggaa aacacctggt gttcaataaa 660
tgtaactctg aaggggtgtt tttgttttgt tttctgtga ttatgggaat aaattctgat 720
tctcggattt ccaggtaaaag atggaggatt gaacacctac ttttgcttcc tctgaaaacc 780
ccatttctcg ag                                     792

```

```

<210> 1340
<211> 588
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> unsure
<222> (44)

```

```

<400> 1340
gaattcggcg ccgcgtcgac ttcagttaa gaaatgtata gtcncaatct aggaaacatc 60
cctgtggagg ttcaggaggg tgggtgggtc tgagggtctg ggtttctgag ggtccagagg 120
actgatggaa ctcagagcgt cctgagtgtg ggcagggtgt ttttaggctt tgggagtggt 180
taagtcttca ggagaggagg tgggtgtgaga agaggagaga cggggatggc cgagattcag 240
cctgcaagag ctctgcttgg aaggaaaagg agccagcaga aaggactgga aagagtagtt 300
ggagggggcag gagaagaatc aaggctcatgt gccaccctgg aagccaaggg aagaccatcc 360
aggcatggtg gggacagctt ggtcagatgc cactgagcct caaggaagct ggagaccgag 420
gattagtgtc ggtgacatgg aggttttcag cctttcatgg gcaaggcagg agcaggtaag 480
gagggaaagt caactgagga gtagagaagt gtgtgatgac tcctggaaga agcctgggac 540
tgcaggggga agacaggagt ggctgaggga gaagagggat aactcgag                                     588

```

```

<210> 1341
<211> 628
<212> DNA
<213> Homo sapiens

```

<400> 1341

```

gaattcgcg gccgcgtcga ccgcggccgc gtcgacttga attctagacc tgcctcattt 60
tcctatgttg tgtaaggct ggctttgcat ggtgacgaag gacgcgtctc cctcctgtgt 120
gtaacaggcg gttctactgt aactgtatc aaagttagc tgcagtgagc tatttgtcat 180
aaattccagt tgcgtgcaa gtctttgcaa gcctgggtct cgtcattccc gacacacagc 240
cgtcaggctc gcagcccggg cagcgggtga gctcaccag caccagccag tgcggcttct 300
gccgctgcga ggaggggcgc gtggggaatg aggtcactat gtcaggagct cgctctcagc 360
aggagcctct cctgcgtta caacacaact ccaatcgac cgagaagtgg gattcatggg 420
atttgggggg tggtctggtc ctcccctgtt tcttaaaaat gtctacggct aagatcagca 480
aggtgaaaaat gaatcacgta tctgcataaa aatgtccttt tcattgcact acgggtgcca 540
cgctcattgt gaacccagc ctgaatcact cacgtgtaca cctgcggaca tgcatttaca 600
caccgacaca cacaccact aactcgag                                     628

```

<210> 1342

<211> 280

<212> DNA

<213> Rattus sp.

<400> 1342

```

gaattcggcc aaagaggcct accattaccg ccaagagccg ccgagagccc tagcggacgc 60
gcaactggagc ctgaccggcc gcaccatgag actcctcccc cgctgtgtgc tgccttttct 120
gctggccttc cccgcgcgcg tgctgtacg aggcggcccc ggagggtcat tagctgtggc 180
tcaagatctt acagaagatg aagaaaccgt agaagatcca ataatcgagg atgaggatga 240
tgaggctgaa gtagaagaag acgaacccaa cagactcgag                                     280

```

<210> 1343

<211> 569

<212> DNA

<213> Rattus sp.

<400> 1343

```

gaattcggcc aaagaggcct aagaccagcc tcgaatcgcc cagctcccca gcttcgtcga 60
ctcacagccc gcctgacccc cttegacctc ttgcgccaca tctcccaaca ctccaacttc 120
caacaacaat ggcaaagctc ggattatgag ctggattggg ggtctttcta atatgtctaa 180
ggtcattctt ggtcctcttc gccagctct ctcaagccac gggcggagca acggttctgc 240
ggcatcttca aatgtccacc attgacacta caggcctagg cagccagctg gcctcgtctg 300
gcgtcgatac ctgctccctc tacggctcag gttcccgatc gggcgacaac acgggtctcc 360
gccagtacta cagctacggc ctctggaacg cctgcgaggc cccaccaaag tcgggcacca 420
gcgagcteta ctgccagggc gccaaagtgt gccgcaaatt cgaaccctac aacgccatcc 480
tcgtctgatc cccatcgagt gcccaaaccg ccacgcgcaa ctgcttggc aacaccaact 540
ttaccaagaa caaggcaggc accctcgag                                     569

```

<210> 1344

<211> 547

<212> DNA

<213> Rattus sp.

<400> 1344

```

gaattcggcc aaagaggcct agtcagtact tcaccccagg aacaaactcc tttgcattgg 60
gattcagatt gctcttcacc acaagatctt ccagagaaga gccatcactg ataacaagg 120
cattaaactg gtcttggtat tgggtccatag tttgtgggag atctcgggct ggaataaacc 180
attcatgttc tcttctctct tccagcattt cttggaaaca gcgttcaata aattcttctt 240
cccacaactc ctcttctatt tgtctgttga attcctcttc attttccatc cacatgtact 300
ctgcaaatgg attatctct tcatgagaat gaccgttaat aatcacatcg tcattgatga 360
tgcttgggct agtactgctg cgacttgat ctttcatggt tgggtgtcgt tgtcgttttt 420
aacccagtcg acggcagcgg ggacggtagc caacgaatcc tgcggcctc cgcggatctc 480
cacaggcagc gccgctcccc cgctcgacgt gcgctttgcc cgcgcctcc cttctccctg 540
cctcgag                                     547

```

<210> 1345

<211> 389

<212> DNA

<213> Rattus sp.

<400> 1345

```
gaattcggcc aaagaggcct aggcgattgc ggggaccgtg ttgcccgcat tccccgtcgc 60
ttcctgcggc cgaaaggcca gactgggtcg ggggaatccg gcctaggcgt ccgcgtcgcc 120
cggtgcgagc gggatggctg cggagaaga ggacgaagtg gaatgggtgg tggagagcat 180
cgctgggttc ctgaggggccc cggattggtc taccctatc ttagactttg tggagcagaa 240
atgcgaagt tttgatgatg aagaagaaag caagttgacc tatacagaaa tccatcaaga 300
gtacaaagag ctggttgaaa agctgttaga aagttacctc aaagaaattg gaattaatga 360
agatcagttt caagaagcac gactcagag 389
```

<210> 1346

<211> 581

<212> DNA

<213> Rattus sp.

<400> 1346

```
gaattcggcc aaagaggcct acgaggggaa ccgttgggcc cgagcgaacc gtaccgagcg 60
ggggcatcgc agagcgcgag tgcggagctc ggagcgcagc acgatgggag gggagcagga 120
ggaggagcgc ttcgacggca tgctgctggc catggcgagc cagcacgagg gcggcggtgca 180
ggagcttggt aacaccttct tcagcttctc tcgacgcaa acagactttt tcattggagg 240
agaagagggg atggcagaga agctcatcac acagactttt aaccaccaca accagctggc 300
acagaaggcc aggagagaga agcagagctc gcaggagaca gagcgctcgg agaaggcaga 360
gcgggcagcc aggttgccca aggagggccaa ggcagagact cccggggccac agatcaagga 420
actgactgat gaggaggcag agagactgca gctggagatt gaccagaaaa aggatgcaga 480
gaacctagag gtgcagctta agaacggcag tcttgactct ccaggggaagc aggatgctga 540
ggaagaggaa gacgaggaag acgagaagga cgcgctcga g 581
```

<210> 1347

<211> 119

<212> DNA

<213> Rattus sp.

<400> 1347

```
ggatgaagct gctgccggac actgggcacc agaatcgccc acccgtggat gggggcagcc 60
agatgccac agtgctggac acccgctgtg ccccgccagg gacctcccc caactcag 119
```

<210> 1348

<211> 443

<212> DNA

<213> Rattus sp.

<400> 1348

```
gaattcggcc aaagaggcct acgcactgga cgctgaccgg ccgcacccatg agactcctcc 60
ccccctgct gctgcttttc ctgctggcct tccccgccgc cgtgctgcta cgaggcgccc 120
ccggagggtc attagctgtg gctcaagatc ttacagaaga tgaagaaacc gtagaagatc 180
caataatcga ggatgaggat gatgaggctg aagtagaaga agacgaaccc acagacttgg 240
cagaagagaa agaagaagaa gaagatgtgt ctagtgaacc agaagcttca ccgagtgcag 300
acacaacccat tctatttgta aaaggagaag attttccagc aaacaacatt gtgaagttcc 360
tggttggtct tacaacaag gggacagaag attttattgt tgagtcacta gatgcctcct 420
tccgttatcc tcaggatctc gag 443
```

<210> 1349

<211> 395

<212> DNA

<213> Rattus sp.

<400> 1349

```

gaattcggcc aaagaggcct aggggtgcttg ctctcaaagt gctgcttgaa ggtcttgggg 60
tcaggcattt gtgtcctaca gactgtgcag gtatatatta aggcagcttt ggcagcagcc 120
ttttggatcat gtccctgtttt cttcttttgt ccagcctgct ttttggcatt tttctgctga 180
gactgaatct tctgtgtgcc acgagccata tccgggcccgg gacggagtgg cgtccgagag 240
acggcgagcgc gcgagaagag ctgagcagga cgagcaggga aggaagggtc gagccccgca 300
ccgcttgggg cctccgccac ccgcagagga aggaccgagc agagccggga gcacaacagc 360
ccgcgcctcg cacaccgcc gcagcgcgcg cccgg 395

```

<210> 1350

<211> 161

<212> DNA

<213> Rattus sp.

<400> 1350

```

gaattcggcc aaagaggcct acgagacttc ccagagcaat tgataaagtg ttgtgggttt 60
ccttttttct gttgcaaaaa gaaaactgct tttccactaa tttgttcctt tcaagcattt 120
taaatatgac aatatttaat attaatgtg tggtttggag g 161

```

<210> 1351

<211> 363

<212> DNA

<213> Rattus sp.

<400> 1351

```

gaattcggcc aaagaggcct agttttctac agccagggttc cccgccctcc tccttcccca 60
agccgtcccg agcaacacac agtcatacac atgggtagta ctgaagccct gacacacgcc 120
ccaaggaaaag tgtacgacac acgggatgat gaccggacag caggcgttca tggagattgt 180
gacgacgaca aataaccgcc ccggcctgct ctaggctggc tggcccagct gctcaggagc 240
cgggctgggt cccggaagcg gccactgact ctgctccagc gggcaggact gctgctcctg 300
ttggggctgc tgggcttcct ggcgctcctc gcccttatgt ctcgactcgg ccgtggactc 360
gag 363

```

<210> 1352

<211> 322

<212> DNA

<213> Rattus sp.

<400> 1352

```

gatgatcgcg accggagccc tcctgcgcgt cctcttgcct ctgctggctt tcggccacag 60
cacctatggg gctgagtgcg acccggcctg tgaccctcag catggattct gtgaggctga 120
caatgtctgc aggtgtgagc ctggctggga gggccccctg tgtgagaagt gcgtaacctc 180
ccctggctgt gttaatggac tctgtgaaga accatggcag tgtgtctgca aggaaggctg 240
ggacgggaaa ttctgcgaaa tagatattcg ggcttgacc tctacccct gcgccaacaa 300
tgggacttgc gtggacctcg ag 322

```

<210> 1353

<211> 357

<212> DNA

<213> Rattus sp.

<400> 1353

```

gaattcggcc aaagaggcct agccatgtcc tgttctccgc tcgtaccatt cttgtccctt 60
ttgtctctgc tgttectacc cgagggtccc agagcagcca ctgcgtccct gccgcaagga 120
tcctccgagg gcgcagccac ctgcaaggcc cagcacctgt gcctcttcgg gccacgccg 180
ttgtctctgc caccacctgt caatgtcagc ctctattatg agtccctgtg tggagcttgt 240
cgctacttcc tcgtccgaaa tttgttccca acctggctga tggttatgga aatcatgaac 300
atcactctgg tgccctacgg gaacgcacag gagagaaatg tcagcggcac actcgag 357

```

<210> 1354

<211> 336

<212> DNA

<213> Rattus sp.

<400> 1354

```

gtaattcttag gcttccgaca caaactaaaa aattctttag cccacttctt accgcaagga 60
acccccatct cactaattcc cataactaatc atcatcgaaa ctatcagcct atttattcaa 120
ccgatagcac tagcagtacg actaacagca aacattacag caggccatct attaatgcat 180
ctaateggag gagctaccct agtacttata gacatcagcc cacttcttac cgcaaggaac 240
ccccatctca ctaattccca tactaatcat catcgaaact atcagcctat ttattcaacc 300
gatagcacta gcagtacgac taacagcaaa ctcgag 336

```

<210> 1355

<211> 488

<212> DNA

<213> Rattus sp.

<400> 1355

```

gaattcggcc aaagaggcct accatgtctg gtttgtctgg cccactatcc tggcctggcc 60
ctctectatc cgccttcttc tttctgttcc ttctcggccc cagctcggtc ctccgcatct 120
ccttccatct acccgtgaac tctcggaggt gtctccgaga ggagatccac aaagacttgc 180
tgggttacgg cgcgtagcag atcaccgacc agtctggggg cgctggcggc ctgcgcaccc 240
acctcaagat cacagattct gctggccata ttctgtatgc caaagaggat gcaactaaag 300
ggaagtttgc ctttaccaca gaagactatg acatgtttga agtatgcttt gagagcaagg 360
gaacagggcg gatacctgac caactcgtga ttctagacat gaagcatgga gtagaggcga 420
aaaattatga agagatcgca aaagttgaga aactcaaac actggagggt gagctacggc 480
ggctcgag 488

```

<210> 1356

<211> 362

<212> DNA

<213> Rattus sp.

<400> 1356

```

gaaagaggcc tacgatgtcg ggcgcctccc gcggaactgt ctggggccgc acctgcctcg 60
ccgcgctctg cctgtcggcc gcgcagagca acagcagcgc atctcccaac gtgactgacc 120
cgccgaccac gaccagcaaa gtgggtccga cgacgctcac caccaccaag ccgccagaaa 180
cctgtgagag cttcaacagc tgtgtttcct gtgtcaacgc caccttgact aataatatta 240
cctgcgtctg gctagattgc catgaagcaa ataagaccta ttgttcaagt gaattagtaa 300
gtaattgtac ccagaagacc agtactgact cctgttctgt aatacctacc accccactcg 360
ag 362

```

<210> 1357

<211> 372

<212> DNA

<213> Rattus sp.

<400> 1357

```

gaattcggcc aaagaggcct accttttccc gcgtcccgca gcatgcagtt ctcccgtgtg 60
ctggccgcgc tgtgcggtgt gctgctctgc gcctccggcc tcttcgctgc gtccggtgac 120
ttctgtgact ccagcctgtg cctgaatggt gggacctgct tgatgggcca agacaatgac 180
atctactgcc tctgccttga aggttcaca ggccttgtgt gcaacgagac tgagaaagga 240
ccgtgttccc caaaccttg cttccacgat gccaaatgcc tggtgactga ggacacacag 300
cgaggggaca tcttacttga gtacatctgc cagtgcctctg tgggctactc gggcatccac 360
tgtgaactcg ag 372

```

<210> 1358

<211> 131

<212> DNA

<213> Rattus sp.

<220>

<221> unsure

<222> (9)

<220>

<221> unsure

<222> (20)..(21)

<400> 1358

```

gaatggcgnc cgtggtgagn ntggtcctgc tggtcctgct ggtcccattg gcctgctgg 60
tgcccgtggt cctgctggac cccaaggccc ccgtggtgac aagggtgaga caggcgaaca 120
aggatctcga g                                     131

```

<210> 1359

<211> 210

<212> DNA

<213> Homo sapiens

<400> 1359

```

gaattcggcc aaagaggcct aatgacaact ttatttgctt ccatgaaagc atcttggaag 60
ttgtataaac atttcttttt tgcagcattc ttttctcttt tactatccga gactgcagg 120
gtttcattgc tagatggagg tggaagggtc tccggtcttg tttctgagag tgttgccct 180
aatatttcac tcccttactg tgcgctcgag                                     210

```

<210> 1360

<211> 187

<212> DNA

<213> Homo sapiens

<400> 1360

```

gaattcggcc aaagaggcct aatgtgtggt tgcacatccc tgtcatctgt atcagacctg 60
tgctttctca atatctgcta atttctattc cattgccatg tcagctctgc tatgtcagcc 120
ctcagtggat tattcagcag tctcttctct gccccatat tccccccca ccacagccag 180
actcgag                                     187

```

<210> 1361

<211> 241

<212> DNA

<213> Homo sapiens

<400> 1361

```

gaattcggcc aaagaggcct agtatatttc tgtgattagt cctgaacatc ccatgttgta 60
ctgtttacct ctctcactgg acttagaaat tctgaagaac agaaacaaaa agttttctct 120
ttctctgtat gttctttttt tgttggttatt attattgact tggatatatc tctttcagat 180
gtattttctt ttattctcaa cacaaagtaa ttttaacatg atctttcttg gccatctcga 240
g                                     241

```

<210> 1362

<211> 210

<212> DNA

<213> Homo sapiens

<400> 1362

```

gaattcggcc aaagaggcct aggccaagaa aaaagaaatt ggcattctct agcaaagaga 60
ttagactttt aaataactct tataaaacag gttggcgatc atttcccaag attgggtttcc 120
cttgagtttt tgctaaaaca aatcttagta gttttgcccc ttttaaaaca ctcaaatcg 180
taaagtctac tattcctaag atatctcgag                                     210

```

<210> 1363

<211> 343

<212> DNA

<213> Homo sapiens

<400> 1363

```

gaattcggcc aaagaggcct aagatattgt catgttcatt cagaattata cccagtcatt 60
ctccctgctt ttagcaacca atattttta atgtataat attttgcca ctgaatgtgc 120
cactttacat aacaatactc ctgatgctgg actttcacat tgttatcaac ttttactgt 180
caataatgtt gcaatacata tctttttgag agatagggtt ttaaattttc tttattttga 240
aataagttct aggttagagc cccaggatgg gattagtgg tggaaaatta agaatcctaa 300
tgactgaag actcctattg aaaccaagag caagatactc gag 343

```

<210> 1364

<211> 241

<212> DNA

<213> Homo sapiens

<400> 1364

```

gaattcggcc aaagaggcct aaagacacat ctgataaata gttgttcttt gtgtatgtat 60
gtgtacaagt atttgccagt agacagctgc catattttatt cataaatgca attaattgag 120
atttagtate taacctcaaa atcagtatat gactttacct gccaagatgc taaagttgtt 180
ttccgctctg gaaatttaca tgtctgtttt ccttaacaca gttccaaagg atagcctcga 240
g 241

```

<210> 1365

<211> 268

<212> DNA

<213> Homo sapiens

<400> 1365

```

gaattcggcc aaagaggcct aagacctgcc tcactggggt ggcctgggag ggaatgaatc 60
aggtgctggg caggcccttc catggaaacc tatgggcact cagggtgaatt ccgagagcat 120
cgttcagcat ggagagaatt cacagggccg gcgaggatgg cagggatggc ccccttggat 180
gactttactt ccacggatgc tgccctgtca gggctcacc aatgctttaa aaatcaacgt 240
gccgattgaa ttctagacct gcctcgag 268

```

<210> 1366

<211> 482

<212> DNA

<213> Homo sapiens

<400> 1366

```

gaattcggcc aaagaggcct aaaaagactc cgtcgttcgg ccggacacct gaagtcaaga 60
cacaaaagag gacggctcgtt tcattgattt gggaagtgg cctacctgtg attagggagg 120
ggtagctctc ccccaactg atcatcgta ggggtgttaa cacagacgag gaaacacacg 180
tttttaaagt tcattgtacg tcttgtacac agaggtaaag atttgaaaac ctgtgccttg 240
tggttggtgac tttgaagctg gccccgccga cggccaccgc acagccccag ggggtgactt 300
gcaagtcgtt gctccctggg aacattgtcc tttccccacg gctttaatca tgaaaaccag 360
gttgggggtt tttttttaat attgtgaaat gtacaccatg aaatgaaagg tttatcctgt 420
gccagaaaac aagggtttatc atgctcctag gaactttttt cttacaccgc ctaccgctcg 480
ag 482

```

<210> 1367

<211> 250

<212> DNA

<213> Homo sapiens

<400> 1367

```

gaattcggcc aaagaggcct agagttacta agaacataaa ctgcaaaact gcctgcacct 60
caagaacaaa tactttatct aagtgtcttt attaaatact caatacaagt gtctgagcta 120
aaggaacctt agagatcact tactctaact cttttatcaa caaagaacct gaagtttggg 180

```

gagattatct aactcatcca aagtcacaga cttaggggttc caagataata tgaaagtgtc 240
ttatctcgag 250

<210> 1368

<211> 422

<212> DNA

<213> Homo sapiens

<400> 1368

gaattcggcc aaagaggcct atctaaatgt catttcaatc agaaaaccag ccatcaactg 60
tcaaaatggt aaaaacagtt atgtgtgttt tcaaagccag aagtgcatac atgtggtgag 120
acttcagggt ttactgttg tccacagttc tgagtcccag gactggtttc cttactcggg 180
attctcccat ggaaaacttc atcgggggaat tatagggtaa tattttcaag acttggaata 240
tgctacagt tacctttcta aaaaacaaac aaaaaaatcc atttaaaagc atttttttaa 300
aaataatcat gccagggtag ccaaatagaa gcaactttgg ggtttttgca gagtcaagtc 360
ttataaattg tggaaatatt cccttgggtc aggagatcat ttgactcca cacacactcg 420
ag 422

<210> 1369

<211> 314

<212> DNA

<213> Homo sapiens

<400> 1369

gaattcggcc aaagaggcct ataggcctct ttggccgagc ggagccggcg gagcctctgg 60
aatcaccggg gtcgctgttc ctgagcagct gcagagcacc gagggctgga gaggagcaca 120
tactgtccat ggagctggtg gtcaaggtgg acagggggcg gtggtgatgg cgcagtttga 180
cactgaatac cagcgcctag aggcctccta tagtgattca cccccagggg agggaggacct 240
gttgggtgac gtcgcccagg ggagcaagtc accttggcac catattgaaa accttgacct 300
cttcttctct cgag 314

<210> 1370

<211> 256

<212> DNA

<213> Homo sapiens

<400> 1370

gaattcggcc aaagaggcct agctttatct cagcagacgt aactagccac agtaaagcaa 60
agcatactgt gaaacacaaa ataacgacct ttaggagtag gggcagaaaa atacatttat 120
aatgctattg ttttctttct ttttgatttt tcctatgtac agtcatttcc aatataatac 180
tatttttaat gcagagggtt taattcactt aaaaaatgaa aacatagtag ataagtgtga 240
gagcagaagg ctcgag 256

<210> 1371

<211> 244

<212> DNA

<213> Homo sapiens

<400> 1371

gaattcggcc aaagaggcct accagttttg cttttcacgt ctatttgaca tagcaaccac 60
tctattgctg ggtaatttat gttctgttta aaacagaaat atttgtgcct gtagtctacc 120
attgctcaat ttgtaattta gctttgcaat gaaagcttct aacagttacg ctttgtcttg 180
gtacattgtt gtttcaggct tattagtttg cacatgtttt agtaatacaa ccaccggggt 240
cgag 244

<210> 1372

<211> 462

<212> DNA

<213> Homo sapiens

<400> 1372

```

gaattcggcc aaagaggcct aacctaaatc acctggaagg agagcattac tcaccaaagt 60
tgcaaaacaa ggggtatcaag aatttgtgta atagccagtg acatgctgta gatttttga 120
aactggatgt acttagcatg ttttctaatt ctgactggct tttgttaact tgataattct 180
tcattctact taaaaagaaa aaaattacac atagtcattc ttgatgttat aaatagagaa 240
aaagtgtgtg tgagcaataa tgcataagct actgataact tgcttacagc agatagcaat 300
aagggtatttg gtggcattcg gcttgttttg taatagggat ttttttttgg gttgaccact 360
ccccacact tccaaaatta aacagtgttt tcttagcatc ttgaatatct cctgcggtgt 420
atattaacat cttgatgaga cagatttcca ggcgttctcg ag 462

```

<210> 1373

<211> 431

<212> DNA

<213> Homo sapiens

<400> 1373

```

gaattcggcc aaagaggcct atcacacaca ctggggcctg tctgggttgg ggggctaggg 60
tagggatagc atcggaagag atacttaatg tggatgatgg gttgatgggt gcagcgaacc 120
accatggcac atgtatacct acgtagcaaa cctgcatggt ctgcacatgt atccgagaac 180
ttagaacata ataataataa ttttttaaaa agtcttgga ccagggtggat ggaggtttga 240
agggttggcat atttatttac tggaaagcaa gagtatgctc aaaattttga gatagtgtga 300
ttgaaaataa actatcacag aaaacctatc tattaaaaaa aaaatagggt agtctccagg 360
atccatagct ccaagctcag gcaggaaaca gatataagga aagattttaa gtacaaagga 420
ctttgctcga g 431

```

<210> 1374

<211> 246

<212> DNA

<213> Homo sapiens

<400> 1374

```

gaattcggcc aaagaggcct aaaataaata aatacaagcc tggctgattt tttgggcatt 60
tcttacagaa ttggataaac aaagtgtgtc agagcccaaa actagaaagc cagaagactt 120
gggttaaatc tctcacatct ctattcccca atagtgtagt aactgtggat aaatcctttt 180
ggagtgtctg gtctcctttc tcccacatct aaaatagtat ttattatgca actccgactc 240
ctcgag 246

```

<210> 1375

<211> 365

<212> DNA

<213> Homo sapiens

<400> 1375

```

gaattcggcc aaagaggcct acaggaagca ctgggctggg gaaatgggtt agaatggagg 60
gctggggcat cactaaaggc ctccctgcac ctggcagtaa ttcattgtga ttttgtcaac 120
atggtcgtgt gccttttttc cagccctgat cagctgctca agagctggca gcagtaggta 180
gataattgga cttaacaaag tgaaaaattg gtatcaccag gatacttggg aggcattacc 240
tctatgtgat gtctttgtat tctgaaaatg ctagtgtgaa ctccctttatt ttaaataagaa 300
aggataagag aatctgagac tgagaaagag gaaaatggaa gtttgcgtat gaagcatagc 360
tcgag 365

```

<210> 1376

<211> 257

<212> DNA

<213> Homo sapiens

<400> 1376

```

gaattcggcc aaagaggcct aatccattcg acatcacggt gatgatccgg gagaagaacc 60
ccgatggctt cctgtcggca gcggagatgc cccttttcaa gctctacatg gtcatgtccg 120
cctgcttctt ggccgctggc atcttcttgg tgtccatcct ctgcaggaac acgtacagcg 180

```

tcttcaagat ccactggctc atggcgccct tggccttcac caagagcatc tctctcctct 240
tccacagcat cctcgag 257

<210> 1377

<211> 511

<212> DNA

<213> Homo sapiens

<400> 1377

gaattcggcc aaagagccta agacgttctg tcattctgcca gcctgcatgg aacttcccca 60
caccctaccc cagcagagcc cacctgaagt tcctgtgtg agaattactc ttgtcaccaa 120
aggccattgt ctccagaagg ccactgtacc ccagcaggga gactggagct tggacaccct 180
ctccattga gtatgttctt ctttgggaat tgctgtcttt ctgtctgaaa gccagagag 240
ccaggtgtct gcggtgtgat ttcagctgtc agggggataa ggtgaagag aggagggacc 300
atggccatct tgetgcccc cccccacatc ctcaaacacc cagccagggg ggtgaatgtc 360
ccagagtgtt ggttgaccaa aagctgtgtc caaaagccag catgcagggg cctgagcacc 420
tgtggaagcc atgagctctg gcctctggat gctgagatct ggtggaagaa actgaactta 480
caaccaggca aataacactt caaagctcga g 511

<210> 1378

<211> 223

<212> DNA

<213> Homo sapiens

<400> 1378

gaattcggcc aaagaggcct acaccaacat aacttcaaat tcaatttttag tttcacaatt 60
ttcacattac tcaaaatatg aaattggaag cttaataggc aagtctggtt tgggggatgg 120
agtagagaag tcaaagggat tatgtgatgg agatgagttt tatgccaaga taaggcttga 180
tataggtgtt gaaagggtgac aatttgacca ttgattcctc gag 223

<210> 1379

<211> 369

<212> DNA

<213> Homo sapiens

<400> 1379

gaattcggcc aaagaggcct agctgctgga ggctctgcgc caggcagtgc agcggaggcg 60
gcagcgcagg ccccaactgat ggccggggcc cctgccaccc ctaactctca ttcattccct 120
ggctgctgag ttgcagggtg gaactgtcat cacgcagtgc ttcagagcct cgggctcagg 180
tggcactgtc ccagggtcca ggctgagggc tgggagctcc cttgcgcctc agcagtttgc 240
agtggggtaa ggaggccaag cccattttgt taatcaccca aaaccccccg gcctgtgcct 300
gttttcctt ctgcgctacc ttgagtagtt ggagcacttg atacatcaca gactcatgcc 360
aaactcgag 369

<210> 1380

<211> 357

<212> DNA

<213> Homo sapiens

<400> 1380

gaattcggcc aaagaggcct atgcagtggc tcacacctt atctcagcct cccaaagtac 60
tgggattaca gccaccatgc ccagactctt tagataattc taaattcttt agatacctgt 120
tgttgcaaat acatacctag aagtgaatct tgaggaatct tcagatatgt gacatcaagg 180
tttgctagct caatgtattt tgaaacctta atttaaccaa tatttcttga ggggccctta 240
catgccaggc cctgttgctg gcctggagaa aagcagtga caaaacagat gagaccatgt 300
tatcatggaa ttttctggac aggacaaaca gacaataaac aaacatatgt gctcgag 357

<210> 1381

<211> 349

<212> DNA

<213> Homo sapiens

<400> 1381

```
gaattcggcc aaagaggcct aagcaaatcc agtttgctga tgacatgcag gagttcacca 60
aattccccac caaaactggc cgaagatctt tgtctcgctc gatctcacag tcctccactg 120
acagctacag ttcagctgca tcctacacag atagctctga tgatgaggtt tctccccgag 180
agaagcagca aaccaactcc aagggcagca gcaatttctg tgaagaac atcaagcagg 240
cagaatttgg acgccgggag attgagattg cagagcaaga catgtctgct ctgatttcac 300
tcaggaaaacg tgcacagggg gagaagccct tggctggtgc aacctcgag 349
```

<210> 1382

<211> 376

<212> DNA

<213> Homo sapiens

<400> 1382

```
gaattcggcc aaagaggcct acggagggtg cagtgcagcca agatcaggcc actgcactcc 60
agcctggatg acgggatgag actctgtctc aaaaaaacga acaaaaatt ttttaagaga 120
aatgtcattt gtttttgttt ttgagacagg gtctcactct gttgccctca ctggagtgca 180
gtgggatcac ggctcactga agtctctacc taccggctca attgatcttc ccaccacagc 240
ctcccaaata gctgggagaa atgtcctggt ttaaatgaat ttgtcttcct ttttgtcttg 300
tttgttttaa tatctagtga tctaataaat ttggatgata tcttttgact atcaattatg 360
aaacctgtat ctcgag 376
```

<210> 1383

<211> 192

<212> DNA

<213> Homo sapiens

<400> 1383

```
gaattcggcc aaagaggcct atcgattgaa ttctagaccc gcccgctccg tcaaacaaagt 60
ttcttcttag gctaagaaac gcagtatata cgagtatctc tatatatagt actaatggat 120
ttgatgtgct tcccccttag cgtccccctc cctctgctcc tcctccttca gcctgggtctc 180
cccctactcg ag 192
```

<210> 1384

<211> 429

<212> DNA

<213> Homo sapiens

<400> 1384

```
gaattcggcc aaagaggcct aaaattgtca atatttaagt aactctttac tgagggcctc 60
ctctttgcca aattggggca ttccatttct tgagtctcca agattccctg aatataactt 120
ctcttattgc ttatagcact ctgcattata gttactgatt tttttaaac aatgtccctt 180
attagatcat aagctcaatg aggctgggat gcatgtcttt ttttttattt gttcattttt 240
cagtttcttc atgcctgttc taatcctcat gcatagtagc tgctcaatca tattagctga 300
gtgaatgaag agaggcgtga atgaatgaac aattgaatga attttcaat gaaaaaagct 360
aaaaactaga taggtctctg acctttattt cctacacaca catttgctca ctacaacctg 420
atactcgag 429
```

<210> 1385

<211> 500

<212> DNA

<213> Homo sapiens

<400> 1385

```
gaattcggcc aaagaggcct aagaagggtg aggttgagc gagctgagat tgcgccactg 60
cactccagcc tgggtgaaag agtgcaactc cgtctccaaa aaaaaaaca aacaagaaaa 120
aaccacaaca aactgttgct tgtaactaa caaatgagc atgaaacatg ttatatgttc 180
tgagttctct attaacatca acattgtgtt ccaaatgttg tgtttgccta ggaatggaca 240
```

```

ctcttcaaag taaacttttc caaggacaca tcttcaccct ctgactgaag aaacctcaaa 300
aagcagagat tcctttaaat gtagtactat gtttgaccat taatacatat agcaaataaa 360
aatgtgttcc atttgtgcct ctgaaatagg ctgtttttcc ctgaaggaga gaataaattg 420
ggatgggtta ggcacaacca ctgttattat tttaaagagc caggagatgg aagtgtagtt 480
atgaaaaatg tacctcagag                                     500

```

<210> 1386

<211> 266

<212> DNA

<213> Homo sapiens

<400> 1386

```

gaattcggcc aaagaggcct agtgtggtta cgccggcgcgc gggagggtgg cttgaaaggg 60
tctttatgaa ccctagggaa aggcgcgtctg gtaggaactc catttcaaga ccttttaaaag 120
tgagacctgc atatgttgaa agagtttcag agagtgaagc tgggttctta gaagctggaa 180
tgccccagca gaatgtagaa atgcgaaaaa ttcggcacag tagtctaaac aggtgcaccc 240
accactagaa tttgaacata ctcgag                                     266

```

<210> 1387

<211> 144

<212> DNA

<213> Homo sapiens

<400> 1387

```

gaattcggcc aaagaggcct aaatggaatc atgataaaat gtctattaca taatatactg 60
ttctgttctt tgctttttct gtttaaaaat atcactgtga aatgtcaatc caacatttta 120
tcacactata ggagccctct cgag                                     144

```

<210> 1388

<211> 242

<212> DNA

<213> Homo sapiens

<400> 1388

```

gaattcggcc aaagaggcct accaagggtgc tgggattgag ggcgtgagcc accgcgcccg 60
gccatgtttt ttgatattct gaataaaaag gatatagcag ttgggatagg cttgggttct 120
tgccctttat gttcttgttc ttccctcatg ataatcaaat cataattaga aataagatgc 180
taagaatata aagggtggctc tatgttaata ctgtattgat aggtcaaagg agaaggctcg 240
ag                                     242

```

<210> 1389

<211> 240

<212> DNA

<213> Homo sapiens

<400> 1389

```

gaattcggcc aaagaggcct agtcatttaa tttttaatct actgagaaga aaaaaataag 60
acaattgaag atacgctttt ttatgggatt tgccgcctaa gcctaagtga taaaactgga 120
acgtttttatt gtttacttat tagcaccctg cttattccaa aaatagaatt tgatatgggt 180
tctaaaaata catacaataa agtaaaaaat atatatatag agagagaaag cgagctcgag 240

```

<210> 1390

<211> 342

<212> DNA

<213> Homo sapiens

<400> 1390

```

gaattcggcc aaagaggcct aaaattgaaa ccaagaaaac ttgttttttag aatatttcgt 60
ctgaataagt acagtagcca aggaatacaa acataattgc atgtttttta aaattccttg 120
gaggctggaa ggggttaagc cagaagtgcg atcaatagga attaggaat gttgtatatt 180

```

tatatatgta aacttttttt gtaagaaaag ttggtgacaa ctaaaccaac tttttccaaa 240
 gtgcgctatg catattttta atgaaagatg acatgtattt gcacaaaaat tctcaggcac 300
 attaaattat tgtaaaactga agtaaaaccc aggtgtctcg ag 342

<210> 1391

<211> 365

<212> DNA

<213> Homo sapiens

<400> 1391

gaattcggcc aaagaggcct actcctagct ttacttttag agttgggaga gaggtttggt 60
 ttctattgtc atttaaatcc tgttgggttt cagcagagcc tgatcttttag ggccctgggt 120
 gcagctgttg tctggagatg cagatcactg tctgctgaaa agagccctcc tgctggggtt 180
 agggatctcc tgattgaggc atggatccaa gggcttcttt ctttgttctc tgattccctg 240
 aggcctcttc ttgtgtgtgt ggtgcgtgtg cactcgtgtg agcgaccag gaactatgac 300
 agcaatcaac gggatgact ggggtggtggg agcagaggca gcatggccag gaatctatac 360
 tcgag 365

<210> 1392

<211> 167

<212> DNA

<213> Homo sapiens

<400> 1392

gaattcggcc aaagaggcct agctgacctt gatttcttgc tgatggagtg ttggacactc 60
 aaaggcacg tgaagccctg tgcgtggctc acctcattgt atccttgcaa cgtcctggaa 120
 aatgtgcaca acaatgtgac ttaattttca gacagggtga actcgag 167

<210> 1393

<211> 244

<212> DNA

<213> Homo sapiens

<400> 1393

gaattcggcc aaagaggcct acgaggggtg ggggtcccag atacctcaac caccacccac 60
 tgcaaggcgt cagaaggagg aggggaagtg gagctctgct ggggttggga gcagcagaca 120
 caggaggcac cagcccggtg tgaggggggg tgtgtggtgg gcagggaaga ggtgcaggga 180
 gttgaatttc ctgtggcttt cacttctctg ggctctgcct ctcccgttag ctcagagact 240
 cgag 244

<210> 1394

<211> 290

<212> DNA

<213> Homo sapiens

<400> 1394

gaattcggcc aaagaggcct atgaattcta gacctgcctc ttataagcca cattcctgct 60
 gttctcctgc actcttctga ttctgtatct ttacatctag attattttta cctcctaggt 120
 tctttccctc ttcattacta ccttataaaa atacatccat tcttcaaata ttttcccaat 180
 ctcccagtaa gaattagcct ctctcaatgc tgggtgcagt gctcattcct gtaatcccag 240
 cactttggga agccgaggca ggcagattgc ttgaaccctg gagtctcgag 290

<210> 1395

<211> 286

<212> DNA

<213> Homo sapiens

<400> 1395

gaattcggcc aaagaggcct agagaagaga aaaagcaaac agaaattggg ggcgtttttg 60
 tggatgcaaa gaaatttaca ggacccttc taccctagag gtccaaggga attcaggggt 120

```

ggctgcaggg cccacgaag ggacattgaa gacattcctt atgtgtagtg tccctggcag 180
gcatttacca ggccatgtgc ttaacgtta cggtaatact ttactttagg catccctcct 240
gttgctagca gccttttgac ctatctgcaa tgcagtgaga ctcgag 266

```

```

<210> 1396
<211> 266
<212> DNA
<213> Homo sapiens

```

```

<400> 1396
gaattcggcc aaagaggcta caaatgagtt gtctggatgt ctcaacctta acatggccaa 60
cacagaattc tttatctccc tatccaaccc tattgccatg ccaccaaac ttgaacccca 120
ttctttccct ctgaggaaat attaccacaa gctaccgggt tgctccagcc aaaaacctac 180
aagtcggact ttattcttct cttgttgtct taccttggtg tcagttcacc atccagtttt 240
gttggtttta cctccaaaat ctcgag 266

```

```

<210> 1397
<211> 568
<212> DNA
<213> Homo sapiens

```

```

<400> 1397
gaattcggcc aaagaggcct aattgaattc tagacctgct cttggctcta aatgtgggct 60
tttcttctcc agtcgccttt ttaactcacc ttctactgcc cagcccttca ggcatcagtg 120
ccccctctcat gctctacaac ctttgccactt ggtgtccctt gtgcctgggt tcccccttcc 180
ctgcaaagcc acatggctga cctctccctt tcaggtttga ttggtcacct tctccgtgaa 240
gcctccctag ccattctgcc tctgattcca cccctctcac ctageccacct ttccattttt 300
ttttcttcac cactcatcac ttgctaacta acataggtca aaggtggctt ttttctttgc 360
ttttaagatg caagatattt gatattgtta tgttgagaac taggagatga cagagaagga 420
aaagttgaaa acacaggcat gagaagagtt gatcgttttg caggggtctg aagaugaagg 480
tgaggagatga atcagagcat aagtggaagg taaggccaag gaagaacacc tcctctcctc 540
tccccctccc tccccctccc cgctcgag 568

```

```

<210> 1398
<211> 370
<212> DNA
<213> Homo sapiens

```

```

<400> 1398
gaattcggcc aaagaggcct aagggggcag gacagtgtgg aatctctagg gtgtatgggt 60
aggtaggggg cacagttagt tctaagtggg cttttatgct aaaagcctct ggggatattct 120
gttttgaaaa taaagatagg tgtccccctc ttgctgtcat ctageccaga cactctgctt 180
gctctctggc tgtctgctcc ctgggaaggc tttaggagga ccaccagga caggatgacc 240
atgctgccat ctgctctgga gctgggtctc agtgcagagg gacagtgact gtggatgggt 300
gcagtctctg gtgggagggt aggatagaag tgataaagag ctaagaggag cttctgggtc 360
tcctctcgag 370

```

```

<210> 1399
<211> 347
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> unsure
<222> (39)

```

```

<220>
<221> unsure
<222> (116)

```

220>

<221> unsure

<222> (127)

<400> 1399

```
gaattcggcc aaagaggcct agcttcgagt cggggcacnt cgagatgctt tacttctttc 60
tttcgacctc ttaaaaaact aaaccaagcc aaaccacaaa ggaaatctgc acaacntaag 120
agagacntga aagggatcgt gtaactacta gtttgacta agtttttttc aagaaagga 180
aacaaattta tatatatata tatatatata tatgtgcaat atatttttac actgtgtgat 240
taacattagg gagtcctggg cacatcgaga tgctttactt ctttctttcg acctcttaaa 300
aaaactaaac caagccaaac cacaaaggaa atctgcacaa actcgag 347
```

<210> 1400

<211> 292

<212> DNA

<213> Homo sapiens

<400> 1400

```
gaattcggcc aaagaggcct agctccttct actatagtaa acatctctgc acataatcgt 60
ttctgtgtgc atgtggaact tctccattta caagggtgctt ttaagtcata aaacgttggc 120
tcttaccatg caggggtggg cgggtgtggc aggtggatgc ggggtgcttt cgccatccct 180
gggcctttct ccttcccctt ttccttcaact cctcccctcc tccctgactc aggatattct 240
tctgattctc tctagcaatg gatcgtgggc aatggacacg caatatctcg ag 292
```

<210> 1401

<211> 213

<212> DNA

<213> Homo sapiens

<400> 1401

```
gaattcggcc aaagaggcct agtaaaattt tacaataatt atttggatta ttcagaagat 60
ctaatttaga tgagtaaatt caacttaagt ctgtgtgtaa aatgagtaga aaatagggtc 120
tttaagaac ttaactcatt aattacgtgc taccattcct gagaggaaac atggggtcct 180
ggggaaatgg agtaggtgag gaagtagctc gag 213
```

<210> 1402

<211> 242

<212> DNA

<213> Homo sapiens

<400> 1402

```
gaattcggcc aaagaggcct aggatgaagc tgctgctggg catcgcttg ctggcctacg 60
tcgcctctgt ttggggcaac ttcgttaata tgaggtctat ccaggaaaat ggtgaactaa 120
aaattgaaag caagattgaa gagatgggtg aaccactaag agagaaaaac agagatttag 180
aaaaaagctt taccagaaa taccaccag taaagtttt atcagaaaag gatcagctcg 240
ag 242
```

<210> 1403

<211> 270

<212> DNA

<213> Homo sapiens

<400> 1403

```
gaattcggcc aaagaggcct actaactagt gaaggaaagg tgaaactggt tccaaatact 60
aaaaatccaga tgcataatc agtaaaatgg aaaaagtcag atgtgaaatt tgaagatcga 120
tttgacaaat atcttgatcc gtcccttttt caacatcggg ttcattgggt ttcaattttc 180
aactccttca tgatgggtgat cttcttggtg ggcttagttt caatgatttt aatgagaaca 240
ttaagaaaag attatgctca ggtactcgag 270
```

<210> 1404

<211> 232
<212> DNA
<213> Homo sapiens

<400> 1404
gaattcggcc aaagaggcct atttaatagc aatctcaaaa ggcttctgaa atttcaatat 60
gaaattaatg ttaaccgata ttttactaca cacctacaaa cagatgctaa tggataaata 120
ttgtgtttca tttattttat tttattttat tagttttcca agacagagtc actctgttgc 180
ccaggctgga gtgcaatggc ttgatcttgg ctcaactgcaa cccccgctcg ag 232

<210> 1405
<211> 429
<212> DNA
<213> Homo sapiens

<400> 1405
gaattcggcc aaagaggcct aagagaacct acaaactaga cttgtagatt aaaattatct 60
gatcaaaaag gcagactgta aatttcctta agacctacct tggcataaag gctgaccag 120
caaaagaact gagaaataca gcctgagatg gacagcagta attgcaaagt tattgctcct 180
ctcctaagtc aaagataccg gaggatggtc accaaggatg gccacagcac acttcaaagt 240
gatggcgctc aaagaggctc tgcatatctt cgagatgctt ggggaatcct aatggacatg 300
cgctggcggt ggatgatggt ggtcttttct gcttcttttg ttgtccactg gcttgtcttt 360
gcagtgtctt ggtatgttct ggctgagatg aatggtgatc tggaactaga tcatgatacc 420
ccactcgag 429

<210> 1406
<211> 235
<212> DNA
<213> Homo sapiens

<400> 1406
gaattcggcc aaagaggcct aaatgttttt tatttgctat ttaatgttct tcttccttag 60
ccacaggggc cactcatggg acaagtgcag accctcacag gcacccggag tcctgcctca 120
caacttgatg catggggact gcatggccct ccctgcgccc aggcctctga caggagtgga 180
gggttgacag agtcactggg tggccaagaa ctcatctcat ggcggtgaac tcgag 235

<210> 1407
<211> 479
<212> DNA
<213> Homo sapiens

<400> 1407
gaattcggcc aaagaggcct actcgaagtc ctcaactcgt gatccaccgc ccttagcctc 60
acaaagtgtc gggattacag gtgtgagcca ctgcaccag tcacatgtcg tattttaaaa 120
gggatttaaa agtatcattg gattgtttgt aacacgaagg ataaatgctt gaggggatgg 180
ataccatttc tccagcatgt catgattaca cattgcatgc ctgtatcaaa acacctcatg 240
taccataaa atatatcac ctactatgta ccacaaaaat taaaaataat ggtgggtgag 300
aagaaacact gcatacggtt tcaaaacat cagagaggcc atgggaaaaa ttttaaaaat 360
atatttacga agtgaacacg ccattctaag tatgacacca aaccataaa cttgaaaaga 420
ccgatacatt ttactaaata aaaataatgt ttttgtatag caaaaccaat catctcgag 479

<210> 1408
<211> 234
<212> DNA
<213> Homo sapiens

<400> 1408
gaattcggcc aaagaggcct aataatctct gagaaattcc agactttccc taatcttttt 60
gtcttctgat ccttcaccag cactgccctt aatgctccag tcatgtcaat acagaccatg 120
ctcctagcca acctgtcctt ccaaattctt ccagcctctg cccattatcc agtttcaaag 180

ctgcttcgcg attttcaggt gttcattttt agcaacaacc ccactcctct cgag 234

<210> 1409

<211> 209

<212> DNA

<213> Homo sapiens

<400> 1409

gaattcggcc aaagaggcct acgtcgattg aattctagac ctgccttcga gtttgacagt 60
 ttaagaatt taataagtta taattttata acctaaaaag aaatatgctc ttactttaca 120
 ttaaatatta tacagtaata ttctctctcg tgattttttg ttctcctagg ttatctagag 180
 gtacaatatt gttaaaccac ccactcgag 209

<210> 1410

<211> 218

<212> DNA

<213> Homo sapiens

<400> 1410

gaattcggcc aagaggccta gtgcattgag gttgcaggta tacagtcacc aaagaacctg 60
 aaataattgc cgggaatgata tcctctaaaa gatgtgagcc tctcagagag agagagagag 120
 gggtctctct gcaacaggca tcgtgtgtgt gttttatgtc ccttctcttc tgctgctgtg 180
 cacttaattc ggttccagcc gtgtcaggga gactcgag 218

<210> 1411

<211> 321

<212> DNA

<213> Homo sapiens

<400> 1411

gaattcggcc aaagaggcct agagtaaaag cagtgggtgt ttatagaaac tgagtgattt 60
 ttgtgaatca tataggagag aggacaggag atgaggtgga aaaggtagat ttggaccaag 120
 tcttgaagga ctttagtgta atgctgcttt ttcttttagg aacaggtggt gaggagtttg 180
 ataagatttt aagtaataga atcacatgct taaatctttg tttttagaat agcagtcatt 240
 gtgataatgt ggaagacatt ggctttgtgc ctagaggcaa ggggacttgt agagtgattc 300
 agtaaagagg actatctcga g 321

<210> 1412

<211> 228

<212> DNA

<213> Homo sapiens

<400> 1412

gaattcggcc aaagaggcct agactggata gattcaattg acctatttct gagttctcta 60
 attctttctt ctgcctgctc agatctgcta ttgagccagc cactctagtg aatttctcat 120
 tcaattatta tacttttgaa atctagaatt tctgtttcgt cctttaaaac aaatctttat 180
 attttctatt taatgaggat ttgttcttgt gctttccttt gtctcgag 228

<210> 1413

<211> 198

<212> DNA

<213> Homo sapiens

<400> 1413

gaattcggcc aaagaggcgt acgattgaat tctagacctg cctcgagctt cctgggtctc 60
 cacatgtgtt tcatcactct cctcctcttt acctggatgc ctctgtcctg tgcctccga 120
 cctccactga gacaatgtca cctccaggaa gtgcccctca caatcctctc ctcccacaat 180
 accctgtccc gactcgag 198

<210> 1414

<211> 241
 <212> DNA
 <213> Homo sapiens

<400> 1414
 gaattcggcc aaagaggcct atgagtagtt tggttcagtc tgtttaatac aagtacttat 60
 tcctatgtat tttccaatac aaaggagcat aactgtata attttggtt taccagttcc 120
 tgcttgcttg agtgctgct ctttgagcct cttttacaca cttcccagtg gctccatcc 180
 tcacagacac tgctcaccag tgggcacttg caggaccagc acttacttcc cctctctcga 240
 g 241

<210> 1415
 <211> 210
 <212> DNA
 <213> Homo sapiens

<400> 1415
 gaattcggcc aaagaggcct agacctgcct ctagtgtgtt gcttctgccg ttggtgtcac 60
 atccaagaaa ccattgccta acacaagtca caaagatttt agagaatttt ttaaagtta 120
 ttttattcat ttatcttaca ctttatagct cattctgctg tattttttaa aaggcagatc 180
 cttcaaggac aatacatagg ggaactcgag 210

<210> 1416
 <211> 216
 <212> DNA
 <213> Homo sapiens

<400> 1416
 gaattcggcc aaagaggcct actcaggata catcaatcac agtcagataa ttataatttt 60
 agaatgtcag cttcatactt accagcactg tttattttta ttttttttcc tgttatatgt 120
 aatatacata acttcaaagc acatccgtac aaacctccta caagctgcac cttcataatg 180
 agaaaccata agcatacaat gtctacttcc ctcgag 216

<210> 1417
 <211> 309
 <212> DNA
 <213> Homo sapiens

<400> 1417
 gaattcggcc aaagaggcct aggagcaggg aacagggtgtt taaaattatc caactgccat 60
 agagctaaat tcttttttgg aaaattgaac cgaacttcta ctgaatacaa gatgaaaatg 120
 tgggtgctgg tcagtcactt tgtgataata tctattacta cctgttttagc agagtttaca 180
 tgggtatagaa gatatggtca tggagtttct gaggaagaca aaggatttgg accaattttt 240
 gaagagcagc caatcaatac catttatcca gaggaatcac tgggaaggaaa agtcccacat 300
 caactcgag 309

<210> 1418
 <211> 230
 <212> DNA
 <213> Homo sapiens

<400> 1418
 gaattcggcc aaagaggcct atgacttttg gatatttggc gtgtattttt tctttaattt 60
 tttccattgc tggccacact cactaaacta aattataact ctttgcttcc atattttcat 120
 catattaaat gcttgacttc ttttttttct ccatttttac tatcccagtg tcctgtttcc 180
 cagaggaaca gttcatttca acagccaggg agaaagctgg gatgctcgag 230

<210> 1419
 <211> 363
 <212> DNA

<213> Homo sapiens

<400> 1419

```
gaattcggcc aaagaggcct acaggtggcc aacctggcca tctccccac caccacagg 60
cccacctggc caggagacgc tctccggctc ctctgcctg gctggtgcca cctgaccgtt 120
gaagatgggc cccgggagat cctgatcaag gaagggggccc cctcgcttct gtgcaagtat 180
ttctgcagc agtgggaact cacatccctt ggccacgaca cctcggtgct gcctgacagc 240
gtggagattg gcctgcagac ctgctgccac atcttcctca acctcggtgt caccgcaccg 300
gggctgatca agcgtgacgc ctgcttcaca tctctaata acaccctcat gacgtcgctc 360
gag
```

<210> 1420

<211> 366

<212> DNA

<213> Homo sapiens

<400> 1420

```
gaattcggcc aaagaggcct acctaaaccg tcgattgaat tctagacctg cctcgagatg 60
ctgctgacct ccgcaagcct tactctctgg gagattgctg tagagaaggg tgtctttgct 120
gcagttccta tgagatctcc cagaaaccaa ggattggggg caccctccag tgacaaacag 180
aatccaacac cttctccctt ctctgctgct gtctctgctt ccagcctctt cctttcccc 240
tctagcattg ctaccttctc tctacacgc acgcaggcat ataaacgtag gtttttgatg 300
ctctctgccc tgttgacccc gctattttca tgtttccaac aggtttttct tccccacccc 360
ctcgag
```

<210> 1421

<211> 431

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (52)

<220>

<221> unsure

<222> (193)

<400> 1421

```
gaattcggcc aaagaggcct aaaaaccctt gggctctggc aatgacactg ancactactt 60
tctgcgctat gctgtgtctg ccgcgggagg tggctctgcac cgaatacctc accccctgga 120
agaagctctt gccctgtagt tccaaggcag gcctctctgt gctgctgaag gcagatcgct 180
tgttccacac canctaccac tcccaggcag tgcatatccg ccctgtttgc agaaatgcac 240
gctgtactag catctcctgg gagctgaggc agaccctgtc agttgtattt gatgccttca 300
tcacggggca gggaaagaaa gactgggtccc tcttcgggat gttctccga accctcacgg 360
agccctgccc cctggcttca gagagccgag tctatgtgga aatcaccacc tacaaccagg 420
actggctcga g
```

<210> 1422

<211> 252

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (35)

<220>

<221> unsure

<222> (39)

<220>
 <221> unsure
 <222> (74)

<220>
 <221> unsure
 <222> (105)

<400> 1422
 gaattcggcc aaagaggcct aggtcaacgt tgtcncatnc cttcacataa gggatagttt 60
 attttgggtt gcantcaaac ttgtgtcag actggtgaaa ctganagtca ggctttttaca 120
 ttttaaagaa aatacagtat tcattctaata tcaggtgtct acttatttta tgtaagaata 180
 atttttagatt tccccccac catgaagttt cttcctatct tcttatgctg taacttacc 240
 cccataactcg ag 252

<210> 1423
 <211> 223
 <212> DNA
 <213> Homo sapiens

<400> 1423
 gaattcggcc aaagaggcct acccctgctt tctcctaaat tactctccca aaggtcacca 60
 aaggaccacg tggatcatcac atttgatgac cttctctcca tttttaccct ccttaacctc 120
 tctgtgtttg atattgtcaa ccactgtccc tttcatgagt ccctggttcc atggcgatgg 180
 tgacattgta ctcttcacgc tcttaaattc tctgaactc gag 223

<210> 1424
 <211> 409
 <212> DNA
 <213> Homo sapiens

<400> 1424
 gaattcggcc aaagaggcct agggcagcga gatggaatca gcaagagaaa acatcgacct 60
 tcaacctgga agctccgacc ccaggagcca gcccatcaac ctgaaccatt acgccacca 120
 gaagagcgtg gcggagagca tgctggacgt ggccctgttc atgtccaacg ccatgcggct 180
 gaaggcgggtg ctggagcagg gaccatcctc tcaactactac accaccctgg tcacctcat 240
 cagcctctct ctgctcctgc aggtgggtcat cgggtgtcctg ctggtgttca ttgcacggct 300
 gaacctgaat gaggtagaaa agcagtggcg actcaaccag ctcaacaacg cagccaccat 360
 cttgggtcttc ttcaactgtg tcatcaatgt tttcaccaca gacctcgag 409

<210> 1425
 <211> 241
 <212> DNA
 <213> Homo sapiens

<400> 1425
 gaattcggcc aaagaggcct aacagcctgg aaactgcctc tagcagcagg ataatgcaat 60
 cacagggtct atttgtttcc cttttctcat ggatctgagt ttcacaagag tgaaactccg 120
 gctcaaaaaa aaggggggtt tattcgaaca acatacaaac acacaacaga atgcttcata 180
 agtcacttta aacaataaaa tagacaataa taacatacat atttttataa gcataactcga 240
 g 241

<210> 1426
 <211> 231
 <212> DNA
 <213> Homo sapiens

<400> 1426
 gaattcggcc aaagaggcct agggacggag cggacccgag tgatacccg gagactagct 60
 tggccacagg agacaacgtt gaggtacaga caggtggcag agaaacaaac atcgggtattg 120

cttaaaccac ttgctatttc cagttccggc ttttgctagg tctaccataa ccaaataccg 180
cagattgagt ggttcaaacg ccagagattg atattctcgc aagtactcga g 231

<210> 1427
<211> 298
<212> DNA
<213> Homo sapiens

<400> 1427
gaattcggcc aaagaggcct acctacgtgt ggccgcccag ctgtctgcag gctgtgccga 60
ccactgcctc tgtctccagg aagcagaggg agaagtgatc ctgtctgagg agggccatcg 120
agtctccgct taaatgccag cacagagaga gcactgcaaa gtgccttcc ccaggcacct 180
gcaccgacat gcagcccgcct ggggaccaca ggtagagcct gctgcctccc gtgcagatgg 240
ccagccgcgg ctgctgcggg tcccactgaa acgcgcgcac tggggacagc tgctcgag 298

<210> 1428
<211> 161
<212> DNA
<213> Homo sapiens

<400> 1428
gaattcggcc aaagaggcct aattttaatc tacattatct ttatatcttc aatttgaaac 60
aaccttttaa taatttcaaa gtagacaaaa tgtttctaac tttcttcac aaaagcatat 120
tttgcttttg ttatacaact gtttttttaa ttccactcga g 161

<210> 1429
<211> 258
<212> DNA
<213> Homo sapiens

<400> 1429
gaattcggcc aaagaggcct acaggctacc atgggtctaca agactctctt cgctctttgc 60
atcttaactg caggatggag ggtacagagt ctgcctacat cagctccttt gtctgtttct 120
cttcgacaaa acattgtacc accgaccacc atctggacta gctctccaca aaacactgat 180
gcagacactg cctccccatc caacggcact cacaacaact cggtgctccc agttacagca 240
tcagcccaaa cactcgag 258

<210> 1430
<211> 288
<212> DNA
<213> Homo sapiens

<400> 1430
gaattcggcc aaagaggcct aatggtaaga atgggtgcctg tcctgctgtc tctgctgctg 60
cttctgggtc ctgctgtccc ccaggagaac caagatggtc gttactctct gacctatct 120
tacactgggc tgtccaagca tgttgaagac gtccccgcgt ttcaggccct tggctcactc 180
aatgacctcc agttcttttag atacaacagt aaagacagga agtctcagcc catgggactc 240
tggagacagg tggaaggaat ggaggatttg gagtatcagt cactcgag 288

<210> 1431
<211> 231
<212> DNA
<213> Homo sapiens

<400> 1431
gaattcggcc aaagaggcct actgtgtgtg agtgcaggca ggctgacaat gatttcctca 60
gtgattacgt acagagcgag tccctgcggg ttaggggccc cctctggagc catcctgatg 120
gctttggggg ccttgcctcc attttccatt attatgtgga ctaccggagc gacagcgag 180
tccaagacct tgcaggtttg tgatgaggag ggagcacaca gcacactcga g 231

<210> 1432

<211> 221

<212> DNA

<213> Homo sapiens

<400> 1432

```
gaattcggcc aaagaggcct agctaggcag ggtgtctgcc cctcctgag ttgaagtcac 60
gctcccctgt gccagcccag aggccgagag ctatggacag cattgccagt aacacaggcc 120
accctgtgca gaagggagct ggctccagcc tggaaacctg tctgaggttg ggagaggtgc 180
acttgggggca cagggagagg ccgggacaca caatcctcga g 221
```

<210> 1433

<211> 332

<212> DNA

<213> Homo sapiens

<400> 1433

```
gaattcggcc aaagaggcct atgcgaaggc atggcgggga cactgtgaat gtcagcccag 60
aaggatgatca gagcctgtta attaaaatgg aaagaagaca gaaggggaagg tagacatcac 120
gttctccctg gagacttttc gttttcattt acgctgcgga aactgacgtt tttgcctaac 180
accccatgta atgtaaaacgt ataggcttga gtacgtgtcc ggccgcatgt gtagtgaacc 240
ctaaagcttt cctaattgta gttagcatcg tccctaagcg gaacgatttt ccgtgaacat 300
gatttgtact tttctacgag ccattactcg ag 332
```

<210> 1434

<211> 212

<212> DNA

<213> Homo sapiens

<400> 1434

```
gaattcggcc aaagaggcct actttttacat acatggttgt atgtttatct gaactatttt 60
caccaatata ttcacctagt gtgtatggaa gtgtccattt ttgtcatacc cctggtaacc 120
ctgtgatatt atttttaaac attttgctaa tggatctctg ttcttggttg aatgtattta 180
atttccagca gaatgagccc cattctctcg ag 212
```

<210> 1435

<211> 398

<212> DNA

<213> Homo sapiens

<400> 1435

```
gaattcggcc aaagaggcct agagaaatgc aactgcctga aataacccaa actttcctcc 60
catccttgcc taccctgaga gagctttaac ctactgtggg cagccatgaa gtccttcccc 120
aactaaaacc atgcaacctt ccatcaagga aggtattctt taggtgtcct gcactttcag 180
tttctctttc cttttttttt tttttttttt tttaaggagg acgattctgt tctctatctc 240
tgggtttttt tcctgaaggt tttctgagtc agaataagaa gttcatcaga aaccattttg 300
atggaataaa ctagcatgcc ttcacacatt agctcattct ctagttcact tttttcaact 360
tcctgtagat agtaaagcaa tgaatatgca agctcgag 398
```

<210> 1436

<211> 398

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (88)

<400> 1436

```
gaattcggcc aaagaggcct agtagatccg aagtggcccg cgccatctca actatgaggg 60
```

```

gacacccgta ggcggcgaggga gagggacncc gcgaggagcc aataaagctc cgcaaccgga 120
agtgtcttct gggaggggtc gtaccgggaa gtgtggcacc tccccggccg caccgggaag 180
tgtgatgcca ccgccgctac ggggaagtaa tggatccgg ccaattgaga ttcggagtta 240
aaacagggat gtgcagatgg aggtcggagg agacactgct gccccggccc ccgggggctc 300
ggaggacttg gaggacacgc agttccccag tgaggaagct agagaaggtg gaggggttca 360
cgcggtcccc ccgatcccc aagacaagga cgctcgag 398

```

<210> 1437

<211> 426

<212> DNA

<213> Homo sapiens

<400> 1437

```

gaattcggcc aaagaggcct acttccaatt aactagtttt gacaacattc aaaaaagagt 60
aataaacttc gccttaattt taataatcaa caccctccta gccttactac taataattat 120
tacattttga ctaccacaac tcaacggcta catagaaaaa tccacccctt acgagtgcgg 180
cttcgaccct atatcccccg ccgcggtccc ttctccata aaattcttct tagtagctat 240
taccttctta ttatttgatc tagaaattgc cctcctttta cccctaccat gagccccctc 300
accaccaccc tggccaccgc atgcctcatc ctggcatcaa cgagcaccgc ccttgggctg 360
gacccacgca ccttgacttc ggccctcccc cccatggctt caacgggcag cccccacaca 420
ctcgag 426

```

<210> 1438

<211> 509

<212> DNA

<213> Homo sapiens

<400> 1438

```

gaattcggcc aaagaggcct agagctgcgg ggaaggaggg ctgggaggcg ctgaagcgag 60
ggcagatctg agtgtctgta ggagtgtgta ttccaaaaaa aatcattact ctctaattgt 120
tctgatttta gatcagcaaa gcgtgccggg cgggtggtgga gagactgagg gcggacaagg 180
cgagagggaa cgagccgtcc acccttcgga gaagcctagg cgcttgttaa gtaattcgcg 240
aacagtcggg agaacaaaca gccaaagcggc gctgcagtgg ccgcacttgc gcgcgtctca 300
atctgggggg ctctgcgcgc ccgccccagt cctcgcgcc attgactcag tggcttctcc 360
gggcgctgca gcctccgctg ggggcttcga agggccgagg ggctccggca gagagggagt 420
ggagagggag acgcgccggg accgacgaac aatcctgccc ctgcggcaaa ggtctctacc 480
cggcgctggc acctcgcagg cccctcgag 509

```

<210> 1439

<211> 376

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (270)

<220>

<221> unsure

<222> (280)

<220>

<221> unsure

<222> (289)

<220>

<221> unsure

<222> (304)

<220>

<221> unsure

<222> (349)

<220>

<221> unsure

<222> (352)

<400> 1439

```

gaattcggcc aaagaggcct agggaccggc tttaaaatta agtgggagca ttgcattacc 60
acccctttct ctttatgccc acgggcatgg gaaaggaggc tgcatttggt gtaaaaaacg 120
aggttctttg tacaatgggt gcacgttact tcgatgcgca cgctccgtct gtcgtagtgc 180
tgggtcagac tcttttcaag tgcaaaggag tccccacact ccaagcactt gtaccacacg 240
gtcggtaacg tgatccctgc attggcgggn ggactgaggn ttgggatgna aacagggact 300
ggantgacac tgctcagcac cttgttgaaa gcttccacca cagaactcng cnaggacgac 360
accacctgga ctcgag                                     376

```

<210> 1440

<211> 449

<212> DNA

<213> Homo sapiens

<400> 1440

```

gaattcggcc aaagaggcct aaggggtgtag acccgatcaa tgtgggaaat gtggaagaca 60
ggctcatcgc tggaagggtc tgtgggcagt ttcaccaaga cttcattcag gaaaatgggc 120
gttttataca ttttgaattg agcattggac ttcgagctga aaagtttctc agagccagag 180
gaaacagcaa actgcttgac catgtaggta agaagcagga agtcattgaa gaggaatccg 240
tgagttcct tgttgctctt ggtcttgat aatttccac tgtgtaagag ctccgggggc 300
cccaggcagt tggtagagaga gttgaaaata agttgctccg cgaggccttc acactgcacg 360
tgcgcttga tccactccag tcggtccgag ttttctctct cccgaactcc ctcattcact 420
tgagagcaca gtcctctgac ccgctcgag                                     449

```

<210> 1441

<211> 316

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (298)

<220>

<221> unsure

<222> (308)

<400> 1441

```

gaattcggcc aaagaggcct acaatcttat tcatatatta gcaagaaaaa gggagagatg 60
cttactggtg gatgctatag agtcctctgt ttttaaaagt accactgcgc ccagcccagt 120
attctgattt taaccaactg gttctgatta tatttaccac aactggagtt aacttctctt 180
tccttatact cttctctccc tatcccctac tcacaccgag gcttaacagc aacctcagat 240
ctcatccaat ggacagaaac aaatgttaag caacttgta tctcactcat gatttacnta 300
tgctaattngt ctcgag                                     316

```

<210> 1442

<211> 251

<212> DNA

<213> Homo sapiens

<400> 1442

```

gaattcggcc aaagaggcct acacaactca gttttgtctt ctgtattgtg tatttgagtc 60
ttctgtattc tgtatatact ttatgggtgaa cactttgtgt ttgaatattt gtgtgccaaa 120

```

tgaagcctgt tttgtctaaa ttcctatttt gcaaggtgca gtcattcttc tttttctctc 180
 tgtttttctc tttctttctg tctctctcag cctctctctc tctcagtgca tgcggcaggg 240
 gctcactcga g 251

<210> 1443
 <211> 265
 <212> DNA
 <213> Homo sapiens

<400> 1443
 gaattcggcc aaagaggcct agcccttgac cacataccaa atagaggcca gcttcttagc 60
 agggcattca aggccactgt agctcctacc tacttttcta gtcattcttc tttccaccct 120
 ccacatggcc agcctctaca ccgtcacgat gaatgactgg ccctcatccc tgaaggctgc 180
 agtgctcaatg cttctgctca cttctctttt cctttcttca agctgctctt ctgctgttac 240
 ctccaggaaa cccccaaggc tcgag 265

<210> 1444
 <211> 417
 <212> DNA
 <213> Homo sapiens

<400> 1444
 gaattcggcc aaagaggcct atttgacaat ctttggcatt ccttgtagat gcatcacttt 60
 aatctctgcc tctgtcttca cacagcattc tcctccatgt gtctctgtct ctgtccaaat 120
 tttctctctc taaggacacc agtcatattg gacttaggtt tcaccccaat ccagtatgat 180
 ctcattttaa cttgattaca tctgcaaaga ccctgtttcc aagtaaggtc acattcacag 240
 attctagggtg gacatgaatt tggtagaggg agggggtagg ggactggata ctgtgcaaca 300
 ctatgtacca ggcactgtgc taagtacttt gcatacattg tctcatttaa ccttcacaat 360
 actcccctga gattccttta ttattattat tcccatttca cagatgaaac gctcagag 417

<210> 1445
 <211> 222
 <212> DNA
 <213> Homo sapiens

<400> 1445
 gaattcggcc aaagaggcct aaacccttct gttgggcgtt tctgctgaga ggcgggaggg 60
 gctgagagtc tgtgcggagg tccgtggaca gactgctttg ctcgttggtg ctcttcggag 120
 gcggcgatcc ccgaaggcga gctgaaatac ggctgcaggc tacaatttgc agccgacgat 180
 tatggaagac ggcaagcggg agagggtggc caccactcag ag 222

<210> 1446
 <211> 221
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (52)

<220>
 <221> unsure
 <222> (70)

<220>
 <221> unsure
 <222> (97)

<220>
 <221> unsure

<222> (209)

<400> 1446

```

gaattcggcc aagaggccta gatgtttgta acacaagggg tcattttctt cnatactttg 60
gggttctctn gtccattctt attttcagaa gaatttngat catttaggca tgtgtgcaaa 120
gaatgatgtt ggtgaggctc agattcaatt gaaacagcaa tcagttagcc actagtggca 180
ccaagcacat ttgattcgct ttcagaggng ggaagctcga g 221

```

<210> 1447

<211> 204

<212> DNA

<213> Homo sapiens

<400> 1447

```

gaattcggcc aaagaggcct acaggaaggc agaatgcacc catcactact tagagtcttt 60
cttgctttgg gcactttctc cacaaatacc aaaacgtata catcaagtgt gagcaggtca 120
gcctgctctc tgccatctct gttagtttta ttttcatcca caaatttaaa gataaaccat 180
caaattggaa atcaccaact cgag 204

```

<210> 1448

<211> 253

<212> DNA

<213> Homo sapiens

<400> 1448

```

gaattcggcc aaagaggcct agaaggacat cacaatgctg ttagacaccc agtgcattctt 60
tgccctgata agaatttgga actacaataa atctcggata cattccttcc gaggcgtgaa 120
ggacatcaca atgctgttag acacccagtg catctttgaa ggagaaatcg ccaaggcctc 180
tggaaccctg gcgggagccc cagagcactt tggagacacg atcttattca caaccgatga 240
tgacattctc gag 253

```

<210> 1449

<211> 422

<212> DNA

<213> Homo sapiens

<400> 1449

```

gaattcggcc aaagaggcct agcctccatg tgagaggatg gcagactcag tgtaggggat 60
cagagcatga atgggataag gaggatgacc atttgggaga gtagaaagag tggcagctat 120
aaccatttgc agtgtgttgg agcctaagtg gaatgatgag ggcattcctgt gcaggagggc 180
agccagcctc aggatagtag aaccaggtg gagagggggg cagtccatgc agacagcagc 240
acagtggcat cagcttgatg gagagtgtta gtagtagggg cagcagtggc agtctaataa 300
ggtatgaagc cttgagtaca gtaaagaggg tacctgtatg tagccatggg ggcaatgaga 360
gactgattac tacctgctgg agattgtttt aagttagtga atatattaag gagaaactcg 420
ag 422

```

<210> 1450

<211> 433

<212> DNA

<213> Homo sapiens

<400> 1450

```

gaattcgcgg ccgcgtcgac agacagtctc taggatgtga gaaagagaga gaagggcgaa 60
aaggaaagt ggcgtgaggg agaagagaga aatgtggcag gggtagggg aacctgggtg 120
caggccaggc tgcctcagcg atacccagg gaggctagtg tgggaaggaa ggaccaggaa 180
tccctgaaag gaccaggagg caacgggacc tgaggggggtg ttggggaggc aaggaggggc 240
tgctcggact ggagctgctt gccaaaggat tcccagttgt gcaccatgag cttctgcacg 300
gccagcagag cattatagcg gacctgctgg tcttcattgat gcatgtggtt catgaccagc 360
tgcttccac cgagctgctc gatgacctgt ttgcctcgtg gataatgccg cacatattct 420
ccaacatctc gag 433

```

<210> 1451
 <211> 609
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (571)

<400> 1451
 gaattcgggc aaagaggcct acacatgtgg gctcgttctg tcaactcaagg ccagcagaag 60
 gggaaccaga agtgtcagcc aattttccag aagagaaaca gagactccca gaggctgagg 120
 gcctggaggt ggtgcagcac agtcccacat ctgatggggc tcctttatct ctgaaaggcc 180
 atttgcttta gtctttgagt tgacagaaag aggcattggac ttgtctatcc caattgatgc 240
 tccagcctca aaagctgtgc attcactata gctagccact gagggtccac accctctctg 300
 aaacttcaac tctaataagct ggaaaagaac actctttctt ctcactctca catgggttaga 360
 gagagagaga gagagagagg tggatgaaca tactttacag atgtgttcac atttgctaag 420
 tgggtcccaa gccatttctg gaaagaatga gggtgcaatt gcctagtggc tgctcagggg 480
 gagagagctg gcaaggggct gacagcagac accctggcat cccagtggag gtctgctgtg 540
 cctggaactg tagtcccaaa atatgggtcaa nttgcgcgtg aaagtatttt aagagctgta 600
 atcctcgag 609

<210> 1452
 <211> 806
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (364)

<400> 1452
 gaattcggcg ccgcgtcgac aatataaaat tcccattaaa atgggtgcaa taatagagga 60
 acaagaagta aggttactct ccttgcattga taccttccct ctcaggacta attttagcaa 120
 aattgagatg taaaatcata tcttttttca gttattttaag caacattaat gatctattaa 180
 atgaaataat ttgtctgaaa atatctagta taatgcctgg ttgatagtag gtactgaata 240
 tttgctattg ataattttat tttctcattt cctacctact tttcttctt tcctttaatg 300
 ttttaaggctg tggtagcatt gtttagcctt tacattcttc agaatttgaa tttttaatcc 360
 tgtnggggtct taatttcttg ggatgtgttt tattttgagg agagttagtc aagggtgaga 420
 gggttatcatt ttagcgtgct gggtaaccag ggggaccca gtgtgacctg agttcttgtt 480
 gtgtctgctg gtataattta tggtaggca ggcagtgggg tgggaggtag gtaggtggta 540
 gatatatgaa aagtagaata ttaacctctt agtacatttg aagcatgtac tgcctaattc 600
 aaagtgaatc tttctgtatc atgtgcctcc tgagggcagt tacgtgtctg ggataagtag 660
 agcgtttttc attctactct caagcacact aaaatgctta ttatgtgaag tattaaggaa 720
 taataagggtg attttcaacc ttgttatata aaacaaaaat ttgcttttct ttccaatctt 780
 ggatgattga caggatttgg ctcgag 806

<210> 1453
 <211> 576
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (69)

<220>
 <221> unsure
 <222> (530)

<220>
 <221> unsure
 <222> (554)

<400> 1453
 gaattcgcgg ccgcgtcgac gaggatagtt gtgaaataaa tagctcactc cagggagtga 60
 gaagatacnt cccccattca aggtacactg ccaaactgca ggaaagagat cctagcacc 120
 accaaggtgc aactatgcta ctggatctct ggggtgaaag aaacaaggag ggagttacag 180
 aggaataatg tgagcagcag aacagagatt ttcattccaa cattatttat gatgaatttg 240
 gggaaaatca gatgaaaaat atatggccaa agtgaatcaa agaagacact aaaattctta 300
 tattttttatc ataatagaca gtgctgcact gcacaaaact ttgtcttcat tctataactc 360
 ttttccaagt ctagaaaaga gtctagaaaa actagactca tatcaacaag cttactctat 420
 tcatgcttac agcgaaaatg agggcctcaa attaggaggt ctttcctttt aagccattct 480
 tctagaagaa tgcagtctag aagtgtgtgag ctgagctttg gccccctaan atcttccaga 540
 aatgaaccca cctnatacca caatcaaacc ctcgag 576

<210> 1454
 <211> 145
 <212> DNA
 <213> Homo sapiens

<400> 1454
 gaattcgcgg ccgcgtcgac cgagtgtttg gtgtaacctg tagcagcaca tgactcactt 60
 gctttcctcc attctggccc accaccatt aatactgcag gtgaagacag atttgctctt 120
 cctcctatta ctctcctgtc tcgag 145

<210> 1455
 <211> 439
 <212> DNA
 <213> Homo sapiens

<400> 1455
 gaattcgcgg ccgcgtcgac cgggttcggt agcgacggta gctctagccg ggcctgagct 60
 gtgctagcac ctccccagg agaccgttgc agtcggccag ccccttctc caccgtaacc 120
 atgtgcgacc gaaaggccgt gatcaaaaat gcggacatgt cggaagagat gcaacaggac 180
 tcgggtggagt gcgctactca ggcgctggag aaatacaaca tagagaagga cattgcggct 240
 catatcaaga aggaatttga caagaagtac aatccacact ggcattgcat cgtggggagg 300
 aacttcggta gttatgtgac acatgaaacc aaacacttca tctacttcta cctggggccaa 360
 gtggccattc ttctgttcaa atctgggttaa aagcatggac tgtgccacac acccagtgat 420
 ccatccaaaa accctcgag 439

<210> 1456
 <211> 557
 <212> DNA
 <213> Homo sapiens

<400> 1456
 gaattcgcgg ccgcgtcgac ggggaataga tccacaaaag catgtatgta cttacaaacc 60
 aagctgtaga gatcaagaaa agaacttaag tgttgatctc aagatttcta aattgtcaag 120
 atttacctgg cattgtggtg gaactagtta acacttagag cttttggtat gtaataacta 180
 tttgctatgg actgattaaa tggttcaaaa gattgtgttc ttcaattttg gtgggttttg 240
 atttttgttt ttttaactgc ctctcagatt atatttactt agtttaaatt tctttgcttt 300
 attcattaaa gtataaaaac ttcaggtctc tgataatttat tttcacttgt ttactaatta 360
 tttacaaaac acccttttgt gacttttatt ttataaatgt gtaatgtatt aaacgtcttt 420
 aaatttttgt tcaactgaaa ctacattaac tttgatttgc tttactggga tttttttta 480
 aagacacttt ttccatgtca gtgcgcagca cttaaccagt cgtttgtatt ccctttctct 540
 tcaatccaac cctcgag 557

<210> 1457
 <211> 413

<212> DNA

<213> Homo sapiens

<400> 1457

```

gaattcgcgg ccgcgtcgac ctttcttgcg tcaacactta ctacattagc aacactgatt 60
agtttcagta aatgtacatg tataacaaag tatacatgta ctagtatata ctgtaaattt 120
tcaaataata ctgaagcaaa tattttgtct tatgcagttg acaggggtatt ggtcagttac 180
agttgtcatt tgaatcagtg ctgtcttatt tacattattt tctagatagt ttgctatgta 240
tttttaggtac ttttaatagct ctttaaatta aagaatgtca agggatgtgt gtggctaagg 300
gggtgtacac acacacatac atgaggtcgc tcatggattc aggtttgtga gtgtaattga 360
ttttaagtca tttatttgac aaccacacat tgtcacataa gcacagactc gag 413

```

<210> 1458

<211> 142

<212> DNA

<213> Homo sapiens

<400> 1458

```

gaattcgcgg ccgcgtcgac gacctgcctc gattgaattc tagacctgcc tcgagccaga 60
gcccaccact actccacca gctaccctcc agataggcac agtatggcca ggcttggcct 120
cacggtcagg gcctttctcg ag 142

```

<210> 1459

<211> 698

<212> DNA

<213> Homo sapiens

<400> 1459

```

gaattcgcgg ccgcgtcgac attctgagag tatgtatgcc agtttggtgc atggatatat 60
tgctgaggtt tgggatatga atgggtcccat aaccagggtg gtaagcatac taaccactag 120
atagttttta aatcctaccc tctgccccac tagtagtctc cagtgtctgt tgtgccatct 180
ttatgtccat gagtatgaaa tgtttagctc ccacttataa gtgagaacat gtgttatttg 240
gttttctggt catgcgttaa ttcacttagg ataatggcct tatataatga agcccagctt 300
tcaaaaacca gaaattacag acacattttt ttttaaaaaa gagaccact attaagagat 360
aaagcaatca gtagaactag atcccgatat aaaggctata gtggaaaaga cagataatac 420
gtttgagcag attggaattt tcggcacaga aacgttaaga aagattcaaa tggaaattct 480
ggaaatagac acattaacag atgaagaatg gctaagacct tcagattctt tagtagactt 540
aatgcagcta aagaaagaat gaatgaacct tgaatgtaga ttcatagaaa taccctaaact 600
aaaaggcaag gagaaacaga acagagtgtc taagaattta ggaaaatcta aaactgtata 660
acatgtctac tagaatttca gaagaagtaa tcctcgag 698

```

<210> 1460

<211> 239

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (189)

<400> 1460

```

gaattcgcgg ccgcgtcgac taccaactga gctgtaaaat tgtgacagt tagcttattg 60
atccattgtc ttgttggata ttattaagca tgagatttgg gggtatttcc ttcgttctct 120
ccttctctcc ttccttctct ctctccttcc ttcctctctc ccttctctct ttccttctct 180
cctccttant tccctccttc cctcctctcc tccctccttc ccttgcccc cccctcgag 239

```

<210> 1461

<211> 836

<212> DNA

<213> Homo sapiens

<220>
 <221> unsure
 <222> (509)

<400> 1461
 gaaattcgcg gccgcgtcga ccaaactctg cctacatgtt atctccaaag ccacagaaga 60
 aatttgtgga ccaggcctgt ggcccaagtc attcaaaaga aagtatggtg agtcccaaga 120
 tctctgctgg acatcaacac tgtgggcaga gcagctcgac ccccatcaac actcggattg 180
 aaccttacta cagcatctat aacagcagcc cttcccagga ggagagcagc ccatgtaact 240
 tacagccagt aaactctttt ggatttgcca attcatatat tgccatgcat tatcacacca 300
 ctaatgactt agtgcaggaa tatgacagca cttcagccaa gcagattcca gtccctccg 360
 tttaaagtca tggaggctat aggatcttat gtaaaccagt tttgtttctg atagtaattg 420
 actttattct aacttgagat cagtggcgga tcaaaaccta caagattcaa ctgaaaagt 480
 ggcagttatg gttttctttc atctgatgng tcagtatctg ttgatttgct ttgtagtgtt 540
 gttgacatct taagattgat gtgaaagttt tagatttttt accctgctct ttgcctcagt 600
 cttttgtacc gagcctttaa atagatgcca ggaatgaagc tactgtgtta aagtagaag 660
 tcaaccgatt atcatgattt gagtcagtgt tatgtgactt caaaataagg tattgactgg 720
 atttttttta aagaatgtga aaatatgatt tttgctgagg tgttattttt attaattgaa 780
 ttgtaaat 836

<210> 1462
 <211> 394
 <212> DNA
 <213> Homo sapiens

<400> 1462
 gaattcgcg gccgcgtcga gcacagccaa gatgttttaa aagagtcata taagagaaat 60
 tgtaatcctg ttttataaag aggacagtgc agggggaaag ctgtacccaa tccccctgta 120
 ttacaccccc cttcccaaaa gataatcatt taagatttcc aaagtatttt ttttatttat 180
 ttgaaattat gtatgatttt attttcattt ctccaaagct ctagtatgct tttaatggct 240
 aagaaaatgg tcacaggggac aaatgtctaa taatgaacaa ctagttaaaa tagttgttta 300
 taagttcctg tcaacttgag ctttatggat gcgtgcataa tttccattgc gtgtgtgtgt 360
 aggatatata tacgtttttc cgacagcact cgag 394

<210> 1463
 <211> 864
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (581)

<220>
 <221> unsure
 <222> (583)

<400> 1463
 gaattcgcg gccgcgtcga aaaatatgaa gaaaacatag tatttcaggt cgtttgctcc 60
 cttatatcac ttatcagatt ttggggactt taaggaccta aattttcaaa aaaatcaagt 120
 tagatcatgg atttttttga aaacttgggt cattaaagtc ctgaagaaaa tttgaaaatt 180
 taagtcctta acgtccagaa gacgtttatt ttagactgta aagtaaaagta aaaccaaggg 240
 ttaagggtag gtaactttct tttgttttaa acaatggat gtctatatct atatctatta 300
 tcacttatag gtatatagcg tctatgtgtg ctaaccagc accaattgcc tcccctagct 360
 tatagaagag accagtgaat tagaagtagg agatgtgagt tctaacccca tttctaccac 420
 taattagata atagaattcg aaaaactcat tgacttcttt cagcattggg tccctttgct 480
 gtaacatgaa gacattgaaa gaagtaactt tatgttagtt gtttctccag tatgttgtgt 540
 gtgtacctgg tgtggacctc acggtcaccc ttgccagaga nantagattt tttttttaag 600
 tctatactaa tattctttcc tcaactagaa ggatagtggg gtgtttactc tcagttgtaa 660
 ataactctgt tttctctgcc tgcattgcat tcctgtctct ctagccattt tataaatact 720

gaaaccagta atcatgattt aagtttttgt gtagactgca gctcatctgt tataaacaat 780
 aaaagctgag taaatatgtg ctaatgggtt taccataagt cctgtaggag cattctcttt 840
 accccattta ccccaatcct cgag 864

<210> 1464
 <211> 505
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (44)

<220>
 <221> unsure
 <222> (486)

<400> 1464
 gaattcgcgg ccgcgtcgac atctcttgaa cccgggagggc ggangttgctg gtgagcagag 60
 attgctcgat tgcactccag cctgggcaat gagcaaaact ccgtctcaaa aaaataaaaa 120
 taaaaaataa aataaaatag ttagctggcc atgggtggtat gcacctgtgg tcccagctac 180
 ttggggaggct gaggtgggag aactgcttga gctcaggagg tgcaggctgc agtgagccaa 240
 gatcacacca ttgactcca gcctgggcag caggacgaaa ctctgtctca aaaaaaaaaa 300
 aaaaaaaaaa aaagtctctc tcattgggta gatatagcca ggccttgctc agtcattggc 360
 tggggaccac cctgagaaaa gcacaggata aaaacctgaa gctgatgctg aagacactaa 420
 cagggtggga gtgtccactt accatactcc ttgcagctga ggggtggctc ctttctagaa 480
 ggggntctt accgacaccc tcgag 505

<210> 1465
 <211> 711
 <212> DNA
 <213> Homo sapiens

<400> 1465
 gaattcgcgg ccgcgtcgac cttgcaggga agtggcttct tgccatgtag agccaggctg 60
 gcaacctgcc ctctgccatc agggagttag catgaacctg gaaacctcta ggacgcaaga 120
 gcgaggctgg ctgtccccctc gtgtgcagtgt cttagacctt cttgccacac atcccgtccc 180
 tcacctcact ggatagcccc cgaatcaact gttcacacga aagcagctgc ctggttctga 240
 gtggccatgc tcaactccaa gcacaggctg aatgaaaaga aaactgtgca agtagcttgt 300
 atgggtgggaa gccccagca gaggtgagg gtgcagccag gtgctctgga agccttgagg 360
 cctctggtgt catcttcctc acctctaaat aagagatggg ctaggttggt caaggctctc 420
 cctgtcctaa aacactttta tgaatggaa gaaaggctgc aggtgatag aggagggaca 480
 gtctggtttg gttccctcaa gtcttcagga gagggctcaa ggacagtctc ccatttcttg 540
 ttggcaaaat gtaaagtga gtctggaccc tgtccattga gtagagactc aggaggccaa 600
 ccaagatccc tgaagagcta acagcgtggt cagccttccc acagacagtg caccaccgt 660
 gggaggacac ttcgcccccc attgttaacg tccaccgcgc ccgaactcga g 711

<210> 1466
 <211> 802
 <212> DNA
 <213> Homo sapiens

<400> 1466
 gaattcgcgg ccgcgtcgac acatatgatg tataaagaat ggtgcaggaa aataaatata 60
 aaagacagat ctcatctctg tctccgtgag ggagtagata ggacatgtat gtaaatgttt 120
 gtgcgtgtgt gtgtttcaca gctcttacac caatgccact ggccagtatt gacatctcta 180
 tataacctcc ccacagaaag gatctaacag tactaagaaa ttgtggtatt ttgagctata 240
 caaatagttt ttgaaatttc ttctgaatga agacctttgg atttctaaaa gcacaaaaac 300
 aaggcttaca gagaaaaagg gtatctaacc tatcccaatt tcagactgac tgtatgacaa 360
 agatatactt acattgatat taccagttta tgtaattttt gcaggataaa tcacaagttt 420

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gagtgtagtg gctctcaatt ttgggggggag gtagttgaat aaatattaga attctcttta 480
agaatagcca atacttatta agtgaaagtg tgccagatgc tatggtaggc attgagctta 540
taaaattgaa tatcaaattg tctctgccct taatgagtga caatccaggg gaggcagaag 600
tgtaataaag tatttataat aatgtataag ggttttgata tgctacttct atattttgca 660
tacatgcata gtaatatagg aaaggataag aagtattatg atataggaag caatatagaa 720
aatgaggtaa ttacattttt ctagaattgg gggagatgac ctataagtag aatttttagac 780
gttgtaaagg gataagctcg ag 802

```

<210> 1467

<211> 433

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (249)

<400> 1467

```

gaattcgcgg ccgcgtcgac cagaagtttt atttacaaga tctcctgaat tattaacaga 60
ccttaaaaaa tccaaatgga aaacttctgt tatcaaatca ctgaaaatag catatatatc 120
tggttctacc aaaaaagaaa aaaatctggc agtattgacc agtttccaaa tgattaagaa 180
aagagtgtca agaaaccagt aaaatacata ggaaaagggt gcccttttta tcctcctcca 240
ccacaccant ttggaaaaca ttttaggggt cttcattgta tttttctaata acattttacc 300
aattgtccag aaaatcaaat cccgtcttca agacgacatt acttgagctg acctgtgcaa 360
acttgggttc cgagaacagg gtgtcttccc catcgctctg cctgacatca ggagatggca 420
gcttcccttc gag 433

```

<210> 1468

<211> 752

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (187)

<220>

<221> unsure

<222> (199)

<400> 1468

```

gaattcgcgg ccgcgtcgac gtgggatttt ccaagaaaaa agggtcagag tcctgggtatg 60
actgctggca tcagggtgaa ggggtgaacac tgctctcagc tgatagggct ctttccagcc 120
atcctgagat cttccacttt aaaactgccca taactcctct gccatccagc aggtgagatt 180
aactcanccg caccaatcng ttaaaactagc cagagtccac tcacaaatta tccccagatg 240
acagattgtc tacaatatc tctactacatt cacaaccttt gatattaata ggtatttggt 300
ccttaatgat attaccaatg ctaaaaataag gaaaaagcaa tacaatggag gtaatgggtg 360
taaagggtgag aggtgtgtgt gtgtgtgtct gtgtgtgtgt gtcaatcggg aatgcttggt 420
atgtaaaagg ggaagaatca atactgtaga acactcacac gctgatttat cactaggcac 480
aaatctaaat tcagtaatat gttcaacatc atcatcactg tcttcctctt attcatcagc 540
aacagggttct tttgattctt ctagaaaata aaataccctt ttaaagtcatt tatttgactt 600
taaaaaaatg aagcatattg taaatctgaa taatgcaatt caattttaat ttccaattat 660
ggccgacaaa tttatttcca atgatgggtg ccaaattctg attatacagt gagcatccta 720
gaaaagcctt gcctcgatct cctgacctcg ag 752

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<210> 1469

<211> 144

<212> DNA

<213> Homo sapiens

<400> 1469
 gaattcgcgg cgcgctcgac agcggatatt agtgaatgga gattccaata taagggcatc 60
 tggaggcgctc tctcgctcac agaggcgccg caccagattt gtcgccacgc cagtgccag 120
 agagtggccc cagatgtact cgag 144

<210> 1470
 <211> 501
 <212> DNA
 <213> Homo sapiens

<400> 1470
 gaattcgcgg cgcgctcgac gtatggtggt atactcataa gccttcagct tgctgtagta 60
 atcagaaaac ttgtttaga ggatggaaat gggcatcccg ttgagaatga tcccaaaagc 120
 aatgcagagg aaggcaaaaa acctgcccag gtgggtctct gggatcatgt ctccgtagcc 180
 cacggtggag atgctcaccg cggcccacca ccaggagtgg gggatggtag tgaagtgggt 240
 gctgggcaca tctgtctcca cagagtagac agccgcagag aaagtgaaga tgcccatggc 300
 gatgaagagc agcaggcagc ccacctgctg gtagcactgg cgcagcgtga agccgaaggc 360
 acgcagtccg gtggagtggc gcgccagctt gaggatgcgg aagatgcgca tgaggcgcag 420
 gacgcgcaac acctgaccca ccttaccacac gctgcccacc gtctggccgc gttggtggcc 480
 ctcgcccgtg aagcactcga g 501

<210> 1471
 <211> 514
 <212> DNA
 <213> Homo sapiens

<400> 1471
 gaattcgcgg cgcgctcgaca gcttgtaaag attctccaaa gaaccctaca tttaacctgt 60
 aagcaggggtt acactctgtc ttgtaacctt ttgcatcatc ttctccgttc taccacactt 120
 atctacccta cagaatactg cagtgtgccca ggtggccttg acaagcctcc ttctgaatac 180
 tttcctatca aggactgggg caaaccgggg gacttgtgga atctgggaat ccagtggcat 240
 gttcccttctt cagaagaagt gtcttttgcc ttttatcttt tggactcctt tcttcagcct 300
 gagctcgtca aactccagca ttgtggggat ggaaaacttg aaatgtctag agatgatatt 360
 ctacagagtc tgactatagt gcacaactgt ttaattggct ctggaaacct cctacctccg 420
 ttgaaaggag agccagtgtac taacttagta ccaagtatgg tgccttggga agagacaaag 480
 ttgtatactg gacttgaata tgatctgtct cgag 514

<210> 1472
 <211> 485
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (87)

<220>
 <221> unsure
 <222> (90)

<400> 1472
 gaattcgcgg cgcgctcgac gtgagtttag cttctgacct ttctcataggt tagtttttta 60
 taggagtgtt aaatataaat tagaccntcn tagtgcataa ttgtatcaga tacttgaatg 120
 gtgcatgtcc agtagataat agtgttcttt gtttcgaggt tcattccattt tataacataa 180
 gtaattcctta atttcttctg aagagtgtta tagaacagga gcaccaaagt tcattccttag 240
 aatttttctt aatgcaaaaag gtatagtgat atatcttaca ctggtcaagt aatctatgtt 300
 atttgctgca gataataata aagtgtatct aactttaagt ctttttttct ttgttctcag 360
 acagcaaatc aaaaggcctc cagtggataa tagatacaac gatagcttat cccaaagctg 420
 aacctataga tattcaaac tggtaccttg gatacaggaa accaacagtc acacatgttc 480
 tcgag 485

<210> 1473
 <211> 814
 <212> DNA
 <213> Homo sapiens

<400> 1473
 gaattcgcgg ccgcgctcgac gtaaagggtt gtaactgact acagcatgga aaaaaatagt 60
 tcttttaatt ctttcacctt aaagcatatt ttatgtctca aaagtataaa aaactttaat 120
 acaagtacat acatattata tatacacata catatatata ctatatatgg atgaaacata 180
 ttttaatggt gtttactttt ttaataactt ggttgatctt caaggtaata gcgatacaat 240
 taaattttgt tcagaaaggt tgttttaaag tttattttta gcactatcgt accaaatatt 300
 tcataattca cttttatat gttgcacata gcctatacag tacctacata gtttttaaat 360
 tattgtttta aaaaacaaaac agctgttata aatgaatatt atgtgtaatt gtttcaaca 420
 tccattttct ttgtgaacat attagtgtt gaagtatttt gacttttgag attgaatgta 480
 aaatatttta aatttgggat catcgctgt tctgaaaact agatgcacca accgtatcat 540
 tatttgtttg aggaaaaaaa gaaatctgca ttttaattca tgttggtaaa agtcgaatta 600
 ctatctattt atcttatatc gtagatctga taacctatc taaaagaaag tcacacgcta 660
 aatgtattct tacatagtgc ttgtatcgtt gcatttgttt taatttgttg aaaagtattg 720
 tatctaactt gtattacttt ggtagtttca tctttatgta ttattgatat ttgtaatttt 780
 ctcaactata acaatgtagt tacgctacct cgag 814

<210> 1474
 <211> 671
 <212> DNA
 <213> Homo sapiens

<400> 1474
 gaattcgcgg ccgcgctcgac atgccaaata tcatttggtt tacttaacaa tattagtgtt 60
 ttaaaatgat gagttataat tatttgaaca tatagatatg taacatgcca caaatcattt 120
 ctaccatgca aggtgtataa gttgtttatt ttttagtggt aaaactataa tagcttgaat 180
 ataggtaacca atgaacaaat tcaaattgca cctcttttct taaaagaatg ggatttaaac 240
 tcttataaac attctttaac ttttttggtt gtttgttctc ttttttctct ttgcatctc 300
 tctagccagt gattgatctg ctaatgcttt ctttgccact ctaagtaaaa tttatttcac 360
 ctctcaatg aaaacctcat ggttttgctg gctgtttata actgcatcgc acttctagtt 420
 gtggcttgaa ttttcagtta agctttcatg gtatgtaatt tccagcctt ttgagaaaac 480
 aagcatacta taagtggag ctgtttgttt ttcttgttt gtttgtttca tgctaggctt 540
 ttctctggcag catgtccatt gcaggcagtg gacaagaaac caccagcatt gagctaacc 600
 agtacatgct aggacctgtc cttagaggggc cacttttcat tacttgagtt atttgtagag 660
 aagagctcga g 671

<210> 1475
 <211> 513
 <212> DNA
 <213> Homo sapiens

<400> 1475
 gaattcgcgg ccgcgctcgac ctcatgcata tttgcatggt tacagtctag gaactttaaa 60
 cagttcttta aatgccaaag tcttaaacag atgttagctg tttagcttct cattaataaa 120
 ataagaagaa aaattatgct ctgagaggtt aaatgacttg ttaagggtta cacagtcagt 180
 ggaaaagctt gggttacagc ccccaaattc taatttgta tccccattta tatccttttt 240
 tttaaattgt aaaatatgtc atatgtataa aagtatattt aacataaacc cacaacttaa 300
 agaataacaa attgaaggct tttctacttg ctaccagct taacaaaaag gagattttcta 360
 gtacctttta agcctcttgt gaggtcctac ttgattgaat ctcccatctt ctctctccct 420
 cagagataaa cagtttccta aattttatgt gaatcatttc tttgcttttc tttatacttt 480
 taccaaatat gtgcatatcc ctaaacactc gag 513

<210> 1476
 <211> 507
 <212> DNA
 <213> Homo sapiens

<400> 1476
gaattcgcgg ccgcgctcgac attttcagtg taagataaat ggatgagtaa actcaaatat 60
gtatcacgtg tgctttgtat cttaagatgt gtttccaaga gcattctgaaa ttttgtttgt 120
acatgtatct tgatcattta taaagccact gtgatctata aatcaaaaaa atccattgtc 180
ataaccattt ttaaaagtca aaaattaaga catccttaat taaaaagttt caaatctaga 240
cactaaatgt gtgtgaatgt acaaagaaaa caaaccattg cttatgctgt tatatactag 300
agaaattttg ttttgcttgc tgttttaact tgacagatga aggactttag ttgaacttca 360
tattgtaaga actgttaata aaagtgtca agtaaaaagc gctatatcta aaaagacttt 420
atgaacagtt attctatcaa cttttaaagg ttttaaacct gcccgagaaat taccttggtg 480
tctgaagttt cctctctgtc cctcgag 507

<210> 1477
<211> 826
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (113)

<400> 1477
gaattcgcgg ccgcgctcgac tctatttttt cctcttctgtc ttcctcttag cactctgaac 60
ttgaaatttt agtgatcaac atcccagaaa ggctttttta aaaattttct gtnggtgttt 120
ctttttcccc aagaagaaa agccagagag aaaatagcta aagaattatg aatttacttc 180
atagctttaa ttagtggcat acatattagt gtatgtctta aaagagtttg cttgatcata 240
atcgactgtc ccagtattat gccttacaac acatttcatt atcacacata tgaaataaga 300
catgtgttta taagaacaat ggataagcct gttttctgac aaaatcatta actatgcaa 360
agttctcttt ttttcttttc ctctgttaat aatgaatgct agctttcagt atctttaccg 420
acttcatctc tgaattaatt ttgaccttag tcaaatgaa ttttggtatt agcctacttt 480
ataaaccttt acattaatta agttgcatat aagcacacta agttacacga tttaccaaaa 540
atttcttttc atcatgcac acaacacttc ccgtgtgttg cataacttaa ggtgcctcca 600
tatcttttga atcaaatttt tggtaagctt caagaaaacc ctagaatcat ccacacaaca 660
aacttaaatc agtttttact tatggaaatt ttagctagag accaggaaat atttaactctg 720
agcccaaat taataagatt tattactaat gatagtcatt tttggataat agatagttag 780
attaagggtt ttaattggt aactgatttg ttaactatcc ctcgag 826

<210> 1478
<211> 365
<212> DNA
<213> Homo sapiens

<400> 1478
gaattcggcc aaagaggcct agaagtagtg tgattaatag catcagagag ataaaagagg 60
agattggaaa ttgaaaagt tcccattcag gtgtcttgga aattgaaaat tcagtagatg 120
atctgagtag cagaatggac atacttgaag aaagaataga cagtctagaa gatcaaattg 180
aagaattctc taaggataca atgcaaatga ccaaacagat aattagtaaa gaaaggcaaa 240
gagatataga ggagagatct agaagttgca acattcgttt gataggaatt ccagaaaagg 300
agagttatga gaatagggca gaggacataa ttaagaaaat aattgatgaa aactttgcac 360
tcgag

<210> 1479
<211> 539
<212> DNA
<213> Homo sapiens

<400> 1479
gaattcggcc aaagaggcct acagctctca agaggcagaa tttatataat aatcctttca 60
actctatgag ttacaccagt ccttcagatc caaatgccag tagcccatag agcagtggct 120
tcaattctcc atcctcaacc ccagtgcgac ctcttatagt caaacagctt atacttctctg 180
gaaattcagg taacttgaag agctcagaca gaaatcctcc actcagtcct cagtcctcta 240

tagatagtga gttaagtgtc tcagaattag atgaagattc aattggatcc aattataagc 300
 taaatgatgt aactgatgta cagattctag cccggatgca ggaagaaagt ctccggcaag 360
 aatatgcagc caccacgtct cggcgcagtt ctggttcac tcgcaattct acaagacggg 420
 gtacttttag tgatcaggaa ctgatgcac aaagtttaga tgatgaagat gacaatatgc 480
 atcatgcagt ataccctgct gttaacaggt ttccaccatc accacgcaaa aacctcgag 539

<210> 1480

<211> 369

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (24)

<220>

<221> unsure

<222> (137)

<400> 1480

gaattcggcc aaagaggcct aacnacctca agggctcatgg aagaaaaaga tgaatatagc 60
 agcagtgaaa ctactggtga aaagccagag cagaacgatg atgacacccat aaaatctcag 120
 gaggaagatc agccaanaat tattaanaagg aaaagaggaa gacctcgcaa ataccctgta 180
 gaaacaacgt taaaaatgaa agacgactcc aaaacagata ctggcattgt cactgtagaa 240
 caatctccat ctagcagcaa actgaaagta atgcaaacag atgaatccaa taaagaaaca 300
 gctaacctac aagaaagaag tataagcaat gatgatggtg aagaaaaaat agtaacaagt 360
 gaactcgag 369

<210> 1481

<211> 397

<212> DNA

<213> Homo sapiens

<400> 1481

gaattcggcc aaagaggcct acaacaacaa caacaaaaac ccacaaaaat tagccgggca 60
 tgggtgacagg caccataaat cccagctact cgggaggctg acgcaggaaa attgcttgaa 120
 cgcaggaggt ggagggttgca gtgagccaag atcgtgccac tgcactctag cctgggtgac 180
 agagcgagac tccttctcaa aaaaaaaaaa aaaccccaa agtagacata aacttggtga 240
 ggcaggcagt tataagaaga gtatgatgct aaggggaaca gcatgacaag aaaagtacat 300
 aggaacacca gagtttggga agaagtagga aaatgagatt agataagtga gatgggttct 360
 aataggaaaa cctgggcatt actcgaggca ggtctag 397

<210> 1482

<211> 243

<212> DNA

<213> Homo sapiens

<400> 1482

gaattcggcc aaagaggcct atgaacaatg gcaactagct ggtctttgct tcagtttctg 60
 ggacttttggt cctggtttgg tgctttttgt tctgcttctc cacattggaa acatggacgt 120
 catcctcatc atccccatcg cctcatcat cctcatggat tgacggtgca gcaaagtgat 180
 tatcttatta aggagattgt tcagccacag gtcagccaac cacttcctgt gcgtggtctc 240
 gag 243

<210> 1483

<211> 631

<212> DNA

<213> Homo sapiens

<400> 1483

```

gaattcggcc aaagaggcct accgtgcact gttcacatct tgggggtctag aggtcaagaa 60
caaagatcac agacaagacg ttactaaacg gacccctgca gtagggtccg aattgcagaa 120
tcatccaatt ccagcatggt cagcacggag atattcacag aaagaaaccc agcaaatgcc 180
tctctgagcc gctagagtca acaagctttt catacacact atggagagcc cagcggccac 240
ataacccttg agaacacagt tccatgtctt ggctaacacg gctctcaccg ctggcctcaa 300
cacccttggg ccatgctccc tctgctcttc catccccacc acaacgaaga aagggtatgac 360
cgcacgttat atatatgaaa gaagaacttt gagggccgag gacagggccg cagcagcaag 420
ctctctgggt agtgccttac tgctccacc acctgagccc tgttccaagt gcaaggagct 480
tcccaaatcc tagagaatga ctgtacttag aaagttttgt tttgtttaag agaaaaatggc 540
tttcatgaa tttatgttcc tcatggcaga tatgttacac ttccctctac aacagaaaga 600
caagcccagg tggggcccgg gcatcctcga g                                     631

```

<210> 1484

<211> 424

<212> DNA

<213> Homo sapiens

<400> 1484

```

gaattcggcc aaagaggcct acaacaccct cctagcctta ctactaataa ttattacatt 60
ttgactacca caactcaacg gctacataga aaaatccacc ccttacgagt gcgggttcga 120
ccctatatcc ccgccccg cg tccctttctc cataaaattc ttcttagtag ctattacctt 180
cttattattt gatctagaaa ttgccctcca gaaattggct ggtggaaaaa aatcaaacaat 240
gaagattgca gttttgtttt gtttttttct gcttatcatt ttccaaactg actttggaaa 300
aatgaagaa attccttagga agcaaaggag gaagatctac cacagaagggt tgaggaaaaag 360
ttcaacctca cacaagcaca gatcaaacag acagcttggg attcagcaaa caacagtact 420
cgag                                     424

```

<210> 1485

<211> 535

<212> DNA

<213> Homo sapiens

<400> 1485

```

gaattcggcc aaagaggcct agcagaccat taaacagctc gaaaatacaa tcagtgaat 60
gagtcacaaa gccctagttg atacctcatg ttcttccaac agagattctg ttgcaagttc 120
atccacata gcccaagagg cctctccccg acccttgcta gttccggatg aagggtccac 180
tgccctagag cccctacgt cgataccttc agcttcacgt aaggggtcca gcggggcccc 240
acagacgagc aggatgcctg tccccatgag tgccaagaac agacccggaa ccctggacaa 300
acccggcaag cagtccaaac tgcaggatcc ccgccaatat cgtcaggcta atggaagtgc 360
taagaaatct ggtggggact ttaagcctac ttccccctcc ttacctgctt ctaagattcc 420
agccctttct ccagctctg ggaaaagcag ttctctgccc tcttctagtgt gtgacagctc 480
taacctccct aatccacctg ctactaaacc atcgattgct cctaaccctc tcgag 535

```

<210> 1486

<211> 124

<212> DNA

<213> Homo sapiens

<400> 1486

```

gaattcggcc aaagaggcct acagggaaaa atgttacttt ttgtgtgtgt tttgctttgg 60
gaccttttta ttttggtgtt gcaaaaagta acatatcttc atcattgctt catacgacat 120
ggag                                     124

```

<210> 1487

<211> 521

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (391)

<220>

<221> unsure

<222> (471)

<400> 1487

```
gaattcggcc aaagaggcct aggcaactac acaggatggt gcttaccagg acggagtttt 60
ggatatcttag tactgaagtt agcactatgt ttacatgcaa aagattaagg aaaaaaccct 120
taaagtggac aggtatccaa agttcatttt ctgtgactca tcaaagtgcac aaaagacttg 180
taacaacttt gcctggactt ttttcatttt acaacagttc atccattcac agtgattttg 240
ttctctgctc catatttttt aatcccttaa gcatttgatg aaacactctt tagtgctata 300
tgcatcttct tacttttggt aaaaatgtga caattgtcaa aaaatgcact aaaatgtaaa 360
tggagattga acaagttcac tttccagctt nataggcaac ttatacaga cttgaacatt 420
ttctccagtt gtttagtaaa agtgaaagag aaagggtttt tcctgccaca nggatataac 480
ttttttttat ataacaagca taacacacca ctaggctcga g 521
```

<210> 1488

<211> 354

<212> DNA

<213> Homo sapiens

<400> 1488

```
gaattcggcc aaagaggcct acgagacgct tgggtataaa tacaggaaat aatttacttc 60
aaattaacaa ttaagttttt attttgtaac taataaaaaa atttccagaa ggggttgatt 120
ttctaaaaat taagtcattc agtaattact tacttgctgt ttgctcctac tccagccaca 180
aaccgtttcc gaggatacct gtctttaagt tgttttaaaag tcattctggt ctgggctaca 240
acccagacat caccaccttt tccaccttct ccacctaaac gaggataacc cattccaccg 300
gatcctcccc tgggtgaagag tcttagctta tcgatgaaat ttccatactt tctg 354
```

<210> 1489

<211> 579

<212> DNA

<213> Homo sapiens

<400> 1489

```
gaattcggcc aaagaggcct acccccgtct ggcctagccc atctgcctcc acgtcgcctt 60
gcccaagatg gccagtgccc caggcatggt ggggctcagg ctgcatgtaa ggccacgacc 120
ctgggtcttc tgcaatacaa gtgggttttag aaagtgcctc tcggctgact gcacgaacgc 180
gggtgctggtg gagcctgccc tcaccatgag gctgctgaac tccttgggtc cgagaaaggc 240
catgagccag ttgggtgagga cgcagatgcc tgctgccacg cccttgacat gcagagggaa 300
gatctctgac atgaggagcc aggggatggg cccccagccc accgcaaagc ctgtgggagc 360
gagacaggca agacaggcat cagggtccgc agggctgggc tcctcagctt gctgcagagc 420
caagagaccc agcttcccag cctgtggggc tgtgggggtc cggatcccag tgtgggtcca 480
ccagctccat gctttcctgc caaggcctcg gccagcctct tccctcctca ggcacaggct 540
ctgtctctga gatgggggtc caacggggcc tgctccgag 579
```

<210> 1490

<211> 520

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (432)

<400> 1490

```
gaattcggcc aaagagccta ggaagttcta tgttttgaac agaattcagc aattagtggg 60
attatgttgt tgggtgttag gaagtatata tcatctaggc caggcacagt ggctgacgct 120
tgtaatccca gcacttgagg aggccaaagg gggcggatca cctgagggtta ggagtttgag 180
```

```

accagcctgg ccaacatggt gaagccctat ctctactaaa aatacaaaaa tttggctgag 240
ccaccacgcc cagccatgat cagccttttg atgtctcctt ttgtcaaaag aaaattgtcc 300
ttgtgttggt ataaagacat atgctacagg agcagcattc tgaagacttc aatttcaact 360
atggctctac ttcttactag tgaaaccctt ggagaagcaa cttaatgtct ctgaacctgt 420
tatctatcat tngtgaaatg ggagataaaa cttgcctgac cctaacccca gcactttggg 480
aggtggaggc gggcggatca cttgaggcca tatgctcgag 520

```

<210> 1491
 <211> 813
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (153)

<220>
 <221> unsure
 <222> (178)

<220>
 <221> unsure
 <222> (185)

<220>
 <221> unsure
 <222> (198)

```

<400> 1491
gaattcgcgg ccgcgtcgac ctaacatgga tagtaatttg aaaccagaag aggttggttca 60
caaggagaaa cgacgaacag agagagcttg ttagaagaga aacttggtgt gaagtctaaa 120
tcaaaaactc aaggcaaaaca ggtaaaagt gtngaaacag aattacaaga aggtgcnca 180
aaacnngcaa cactccnaa accagacaag gagaagaaca cagaagaaaa tgactcagaa 240
aaacagcgta agtctaaagt tgaagacaaa ccttttgagg aaactgggtg tgaacctgta 300
ttagagactg cttcttcttc agcacatagt acacagaagg attctagtca tagagccaag 360
ttaccattag caaaggagaa atataagagt gataaagact ccactccac caggcttgag 420
agaaagtgtg cagatggcca caaaagcaga agcttaaaagc atagtagtaa agacataaaa 480
aagaaggacg aaaataaaatc agatgacaag gatggttaaag aagttgacag tagtcatgaa 540
aaggccagag gtaatagttc actcatggaa aagaaattaa gtagaagggt gtgcgaaaat 600
cggagaggaa gcttgtcaca agaaatggcc aaaggagaag aaaaattagc agcaaacact 660
ttgagcactc ccagcggttc ctcccttcag agacaaaaaa agagtgtgta tatgacattg 720
atccctgaac aagagccaat ggaattgat tctgagccag gtgttgaaaa tgtgtttgaa 780
gtatctaaaa cccaagacaa ccgcctcctc gag 813

```

<210> 1492
 <211> 450
 <212> DNA
 <213> Homo sapiens

```

<400> 1492
gaattcggcc aaagaggcct aatctaaagt tctgagactt attaagggtat taaagtaaca 60
gttttatttt gagatttagc ttgtgttata tggaattttt cattagcaca atgtgttgag 120
gtgagacttc atggaaagt actgtaaaaa acaaaaaaaa gtccttactt ccattcagtt 180
taccatcatg gatccaaact aagggtaaaag ccagtacatc ctaatatgtg cccaacccat 240
aactttaaat gattaaatga aacacacaac agggagatct attgttaatg tgtaaaccaa 300
aattgccagg aattgcccta aaggggaaaa attgtttaat cagtaaatca gtgaggaaat 360
acaagattat aaattagaag tgttgctatg gtgttagctc ttacatccct gaacaacaaa 420
aaagacagtt caacccaag cattctcgag 450

```

<210> 1493

<211> 184
 <212> DNA
 <213> Homo sapiens

<400> 1493
 gaattcgcgg ccgcgtcgac ggaaacatct ttgttggttg attcattccc agggagtgc 60
 tttggaatag gggagactag agtttatact tctgggtgtag ttactttact tgtgcaaata 120
 gacagacatt ttaaaaaata ttatctttta catgagaaga gatattgaga aggcctcgact 180
 cgag 184

<210> 1494
 <211> 656
 <212> DNA
 <213> Homo sapiens

<400> 1494
 gaattcgcgg ccgcgtcgac cagcaaacaa cagtttttac accagtagca agacttccta 60
 ttgttaactt tgattatagc atggaggaaa agtttgaatc cttttcaagt tttcctggag 120
 tagaatcaag ttataatgtg ttaccaggaa agaagggaca ctgtttggtg aagggcataa 180
 ccatgtacaa caaagctgtg tggctgcctg agccctgcac tacctgcctc tgctcagatg 240
 gaagagttct ttgtgatgaa accatgtgcc atccccagag gtgcccccaa acagttatac 300
 ctgaagggga atgctgcccc gtctgctccg ctactgtctc ctattctcta ctcagtggta 360
 tagcattaaa tgatagaaat gaattttctg gtgattcttc agaacaaaga gaacctacca 420
 atttacttca taagcaactg ccacctcctc aggtgggaat ggaccgaata gtaagaaaag 480
 aagcatttca atctgaggag gatgaagaag tgaagaaga agatacagag caaaagagag 540
 agacccttga atctagaaat caggggcaac tttacagtga gggggacagc agaggaggag 600
 acagaaaagca gaggcctgga gaggagaggga ggctggcaca ccagcaacga ctcgag 656

<210> 1495
 <211> 210
 <212> DNA
 <213> Homo sapiens

<400> 1495
 gaattcgcgg ccgcgtcgac cctcgacgga gacgtggcag gcgaagcggc tcagcagggg 60
 gtgtttgggt atgaagccga aatagcagct gttcggggga tggcagccgc agaaggagat 120
 gttcttcac tggagaagaat ggctgcagcg ctggaactca ggccctcctc cgtcagact 180
 cagcttgacc ccccgaaagag agatctcgag 210

<210> 1496
 <211> 760
 <212> DNA
 <213> Homo sapiens

<400> 1496
 gaattcgcgg ccgcgtcgac gatttgggggt gttctttttg tttgcttggt tgggtgggtt 60
 ttattggggc ttccccctc aagttctctg atgggcatga gtcacctc ggctgggggt 120
 tctcatccgt gtcaatgtcc gagccgcaag cttattgcta agcacagggt acggccccctc 180
 tgtgtctcgg ggagcactgg ggatttgaaa atgccagtca ggggtgtttc ttacagaatt 240
 cgttcctgta acaatagtaa tactaagggc tgcatctcag gctgaccaca gggcaggtgc 300
 caagttaagt gttttcatgc actccctctc tcaccacctg ggaggcaggt atgattaacc 360
 ccctgcagaa aaactcacag tggggaagcg gtgccggaac ccaaagtcca ggctccaact 420
 ccctggacgt gacatgctcg ccagccgggg tacacctgc acaatgctgg gagcatctcc 480
 ttgatgcctc caccatcacc gcctggagcg ctgatccact cagcacattc tggctaagca 540
 tctgctgtgt gccaggcccc gtgctgggca gtgatgggaa tgaaagatga gttagatctc 600
 atctctgtccc ccggggagcc tcccatctgg tgggagacac agacacgtgg atctttgctg 660
 gaaagggtaa caaggccatg gaaacccagg caggagcggt ctagaaatcc atccactttc 720
 aagtaggact tccatgcccc taacatccag cccactcgag 760

<210> 1497

<211> 711
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (110)..(111)

<400> 1497
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 ttctttcact ccttccttag agccggaggt cgcgcgcagg gacctgtcg gcggagaccg 180
 cgagcggccc cacagaggac caggtggaaa tcctggagta caacttcaac aagggtcgaca 240
 agcacccgga ttccaccacg ctgtgcctca tcgcggccga ggcaggcctt tccgaggagg 300
 agaccagaaa atggtttaag cagcgcctgg caaagtggcg gcgctcagaa ggcctgccct 360
 cagagtgcag atccgtcaca gactaaggag atggcaggca ttgacagctt cactccatga 420
 aggccatctc tgtttctctc ctccgcttaa ccaagctgtt gtggtttttc agcatagtgt 480
 tgtatgttcc attgctagct gtctgtctgt ttaacacagt gttgtatttt ttttctaaat 540
 gtacataatt agaaaagaaa ataacaatag gaagctatgt gtatcttctg tgtaaagcag 600
 tggcttcact ggaaaaatgg tgtggctagc atttcccttt gagtcatgat gacagatggg 660
 gtgaaaacca tctaagtttg cttttgacca tcacctcca gtacgctcga g 711

<210> 1498
 <211> 662
 <212> DNA
 <213> Homo sapiens

<400> 1498
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 ggcacaccag ccttacttta tgagcttgat ggtcatcagc aaagactctc tcccttttagg 180
 agggttctcc ttgggacttt tcagtgtctt ggcaggaaag agatggcaca cacgaagcac 240
 tgattgaaga cagtttaatg aaagaatatt tacagagggt gggcaagggt atggaaaaca 300
 acagggaaca gtaaaacacc cagggatgac aaggcaaggt agctcatgtc tgtaactctca 360
 gcactttggg aggccaacac aggcagattg cttgagccca ggagtttgaa accagcctgg 420
 caacataagc aagaatctgt ttatctacaa aaaataaaat aattaaaaaa aaattacctg 480
 gctgtggtgt tgcacaccta tagtcccagc tactcaggag tctgagggtg gaggatcact 540
 tgagtccagg agtttgaggt tacaatgagc taggatcaca ctactgcact ccagcctagg 600
 cgacaaagag agatgctgtc tctaaaaata aaaaacaaaa acaaactgcc cagggaactcg 660
 ag 662

<210> 1499
 <211> 695
 <212> DNA
 <213> Homo sapiens

<400> 1499
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 ttagtccag gaccagacgt cagtctaaca gggcaaccaa ggagatacaa ttacatcaga 180
 tgaagaagtg gcacgaagaa gtgactgcat acagagatga agttgaggaa gtgggagcta 240
 gagctcagga gatactggac gagagccacg tgaacagcag aatgggttgc caggccaccc 300
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 aggaggagat tcagagtttg gaggaatcag aatcatccct cagttcctat tctgattggg 420
 atggctctac tcataaaaac ttcaagaatg tggctaccaa gattgacaaa gtgatacag 480
 taattgatgg gaagaaattg aagacgttgg aggttttgct caaagacatg gagaaaggtc 540
 acagtttgct gaaatcagcc cgggagaaag gagagagggc tgttaaatac ttggagggaag 600
 gcgaggcaga gaggtaaga aaggagattc atgatccat ggagcagttg aaggaaactga 660
 ccagcactgt ccggaagaa cacaggacgc tcgag 695

<210> 1500
 <211> 626
 <212> DNA
 <213> Homo sapiens

<400> 1500
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 tggacatgtt cacctgccca tgtttaggat gaaagtcata aagttagggg aagggaagaa 180
 agattaaaga ctgctatagt gaagtaatga gggagaaaga aattaaaagg aaggacacaa 240
 agcacatttt aaacatgcat gaatcaaatt actgttggtt atgctgacag tgtttgttgc 300
 ttaatgaact aaccacatca agcaaagata ggtttgactt caggggtctgc tggatctggg 360
 gactcaaact gtatcatgca tccgactgtc tctgtttctg taaaacattg tcttattctg 420
 ccttctattg ctataagtga ataatacaaga ctgggtaatt tataagggag agagggttat 480
 ttagccaca gttctggaga ccaggaggtc caagattggg cagctgcatt tgatcagctt 540
 ctgggtgagg cctcgtactg ggtcttaacc cagcagagaa gaagaagggg aagtgggcac 600
 aagcaaagac gtcaagcata ctcgag 626

<210> 1501
 <211> 509
 <212> DNA
 <213> Homo sapiens

<400> 1501
 gaattcgcgg ccgcgtcgac acttaaaact cccagtaaat cttggaataa atatattttt 60
 ccttcccttg tagtttccat ggtagctgaa tgtgctcaga tgtgagcagt cagagactga 120
 cagccatgct ttccataact tgttcaaagg atcgatggac cgtaaataag ctgccattaa 180
 cacatctggt tactgctgta acatgactaa taaaaccgaa cgctctgttc ccttaccctg 240
 gtgggggaca cgcagatgag tgaattggaa tgtccagcag agttaccctc ccaattatat 300
 gtccattttg tatatttttt ggtcggggga aaaattgacc tgcagtaaaa aaacctttga 360
 ccatttttat gtccattgga tactttcctt tttatcatct taaaaaaga taactagtac 420
 taatcattgt agtggcctaa gtgtgattta actcttgaag tcacaccctc cgaaagatga 480
 gtagaaaacca gcaccagcac agtctcgag 509

<210> 1502
 <211> 770
 <212> DNA
 <213> Homo sapiens

<400> 1502
 gaattcgcgg ccgcgtcgac gaaatgatgg aggaatccag tggaccatat tctgatggaa 60
 cagaaaaattc acaactaaat gtgaagataa gtggcatgga gagaaaatca aatggaaaaa 120
 gagattcatt tttggcacia acaaagaata aaaaagaaaa tatgaaacca gcagccaaac 180
 tgaaacttga atcttcgtct ttaaaagtaa aggggtgaaat tcttttggaa gaggaaaagt 240
 ctactgactt tgtgtttata cctccagaag gaaaagatgc aaaggaaaga atattaactg 300
 atcatcaaaa agaagttctc aaacaaagc ggtgtgatat tcctgccatg tataataatc 360
 tggatgtttc ccaagatacc ttatttactc agtatagtca ggaagagcct atggaaatc 420
 ctactttaac cagaaaacca aaggaggatt ctaagatgat gattacggag gagcaaatgg 480
 acagtgcacat tgtcattcct caagatgtca cggaagactg tggatggct gaacatcttg 540
 aaaagtctc cttttcgaat aatgagtgtg gttctcttga caaaaccagt ccagaaatgt 600
 caaacagtaa taatgatgaa agaaaaaag ctttaatttc atcaaggaaa acatcaactg 660
 aatgtgcatc tagtacagaa aattctttcg ttgtcagcag tagttcagtt tctaatacca 720
 ctgtgtgtgg aactcccca taccctacaa gtcggaggca tgaactcgag 770

<210> 1503
 <211> 870
 <212> DNA
 <213> Homo sapiens

<220>

<221> unsure

<222> (147)

<220>

<221> unsure

<222> (168)

<220>

<221> unsure

<222> (182)

<220>

<221> unsure

<222> (336)

<220>

<221> unsure

<222> (339) .. (340)

<220>

<221> unsure

<222> (386)

<400> 1503

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agaatattac caaagaaggt ggcttantgg acatggccaa gaaagaanat gacttaaatg 180
cngagcccaa tttaaagcag acaattaaag caacagtaga gaatggcaag aaggatggca 240
ttgctgttga tcatgttgta agcctgaata cagaaaaata tgctgaaact gtcaaaactta 300
agcataaaaa gaagcccagg taaagtaaaa gacatntcnn ttgatgttga aagaagggaat 360
gaaaacagtg aggttagacac cagtgnrtga agtggctctg caccctctgt tttaacacaa 420
aggaacggag aaactgagga tgtggcaact gggcctagga gagcagaaaa gacttctgtt 480
gccactagta ctgaaggga ggacaaagat gtcaccttaa gtccagtga ggctgggcct 540
gccacaacca cttcttcaga aacaagacaa agtgaggtgg ctttgccttg caccagcatt 600
gaggcagatg aaggcctcat aataggaaca cattccagaa ataatcctct tcatgttggg 660
gcagaagcca gtgaatgcac tgtttttgct gcagctgaag aagggtgggc tgttgcaca 720
gagggtattt ctgaaagtga aaccttcctc acaagcacta aggaagggga aagtggggag 780
tgtgtgtgtg ctgaatctga ggacagagca gcagacctac tggctgtgca tgcagttaaa 840
atcgaagcca atgtaaatag cgtgctcgag 870

```

<210> 1504

<211> 713

<212> DNA

<213> Homo sapiens

<400> 1504

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gaattcgcgg ccgcgtcgac gtgaacaaat attagtataa gcatcagatg tgcaaaattg 60
ggtctaacaa gaacactgtc cttggggcct tcatacaaa gaaaaatgcac tgaaggcccg 120
gcgcggcagc tcacgcctgt aatcgagca ctttgggagg ccaaggcagg tggatcactt 180
gaggtcagga gttcaagact agcctggcca acatgatgaa gccccatctc tagtaaaaa 240
acaaaaatta gctggaagcg gtggtgcaag cctgtagtcc cagctactcg ggaggctgag 300
gttgagaat cacttgaacc cttagggcgg aggttgagc gagccgagat cgtgccactg 360
cactccagcc tgggcaacag agcgagactc catctcaaaa taattaaaaa aaaaaaatag 420
aaaaatgcaa tgaagtgtta ttgagcgttt ttaagggaga aggcaaggat ggcacaccca 480
gtcgggtcac ttgtgcatcc agaagagatg gaaggtgttt caagtgaagg aaatcatatg 540
agttagggga aatatgcctg cgtatccaca gaactcacc accgtgtgtg 600
gagtgaggac tgccacgtgg gcgtgggtgg gttgcatgga tcgacttggg tgggcaagtg 660
gaggaaggcc tgagatccta cgaacacaga ggcagtcacg aagtgggtctc gag 713

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<210> 1505

<211> 682
 <212> DNA
 <213> Homo sapiens

<400> 1505
 gaaattctca ggcagtcaga ctgtcttagg caaatcttga taaaatagcc cttatccagg 60
 tttttatcta aggaatccca agaagactgg ggaatggaga gacagtcaag gggtatgtca 120
 gaaaaggatg agtatcagtt tcaacatcag ggagcgggtg agctgcttgt cttcaatttt 180
 ttgctcatcc ttaccatttt gacaatctgg ttatttaaaa atcatcgatt ccgcttcttg 240
 catgaaaactg gaggagcaat ggtgtatggc cttataatgg gactaatttt acgatatgct 300
 acagcaccaa ctgatattga aagtggaaact gtctatgact gtgtaaaact aactttcagt 360
 ccatcaactc tgctgggttaa tatcactgac caagtttatg aatataaata caaaagagaa 420
 ataagtcagc acaacatcaa tcctcatcaa ggaaatgcta tacttgaaaa gatgacattt 480
 gatccagaaa tcttcttcaa tgttttactg ccaccaatta tatttcatgc aggatatagt 540
 ctaaagaaga gacacttttt tcaaaactta ggatctatgt taacgtatgc cttccttggg 600
 aactgccatc tcctgcatcg tcataggggt aattatgtat ggttttgtga aggctatgat 660
 acatgctggc cagcacctcg ag 682

<210> 1506
 <211> 668
 <212> DNA
 <213> Homo sapiens

<400> 1506
 gaattcgcgg ccgcgtcgac gtctcactct gttgccagg ctggagtga gtggtgtgat 60
 ctctgctcac tgcaacctcc acctcccagg ttcaagtgat tctctgcct cagcctccca 120
 attagctggg attacaggcg tgcaccacca cactcagcta atttttgtag ttttagtaga 180
 gacgggggtt tgccatgttg gccaggctgg tctcaaattc ctgacctcaa gcatctacc 240
 ctcttgggcc tcccaaaaatg ctgggattac aggcgtgagc catcgtgccc agccttcacc 300
 cggtagttta atgtggcttt gtagaagaat cagtatttcc ctccctagag tccctctgtg 360
 acttactttc taacatagct ccactgtatc tcacaggacc ccggatgccc cagcccccat 420
 ccttcccaaa ttcactccgt tcttcccctt ctcttcgggt ttactctgct ttagccgtgc 480
 ggcattctct tccattatgg aatatgtccg gactactccc acccgtcaga ttttgtaact 540
 gtggttccca ctagaagcat ccagaatgtt tttcctctct accctcccc attctttcat 600
 tggatgacct tattctcatt cttctggtaa taatcagggt taacacctct ctgaccacct 660
 cactcgag 668

<210> 1507
 <211> 636
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (48)

<220>
 <221> unsure
 <222> (137)..(138)

<220>
 <221> unsure
 <222> (147)

<220>
 <221> unsure
 <222> (159)

<220>
 <221> unsure

<222> (161)

<400> 1507

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tctctatact ctgaccacaa gaccatttaa agaaatgatt catcgggtttt ggtataacta 120
cagacaaaga aaatctnntg gacagcnaag gtcagaaanc ntatgctcca tcattcctct 180
gggtggaaat gtggccactg caggagatgc cacctgagtt aatgaagccg gaccttttca 240
catacccctg tgaatatgtca ctgatttctc aatcaacgag actcaattcc tattcatgac 300
tgactctgaa attcatttct tgcagagaa tactgtgggg gtgcttcatg agggatttac 360
tggatatgaaa tgaataccac aaaattaatt tataataata gctaagataa atattttaca 420
aggacatgag gaaaaataaa aatgactaat gctcttacia agggaagtaa ttatatcaat 480
aatgtatata tattagtaga ctttttgcac aagaaattaa gagaaatcta cttcagtaac 540
attcattcat ttttctaaca tgcatttatt gagtaccac tactatgtgc atagcattgc 600
aatatagtcc tggaagtaga cagtgcagaa ctcgag 636

```

<210> 1508

<211> 837

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (754)

<220>

<221> unsure

<222> (806)

<400> 1508

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gaattcgcgg ccgcgtcgac aaatcctcaa gctggccttt aataattttt atgtccagca 60
tttttttcat gcaattcatt tctaagggtc aatttttttc ttcctaaagt gtcacctttg 120
gtagattttt cttcagggtc tgcaattagt aaattttctc attgattaca tatttgaaaa 180
gggtctgttag tcttgctggg tatagaattc aagatgatga ttacattcgt ttgctacttt 240
gaagatgtta ttttctcaaa ctattagatt ctgggttctat taaagactgc tggttggtcta 300
acagtttctc tgaggtaatc tgcctttgat ttatgcttgc ttttaagatt ttctccttgt 360
ctgcgatgcc ttacatgttc actataatgt gggtcggggg attgatttat tacttgtctt 420
gctaaggggt gattgactgt cataacccta gaatttatca tttctggaaa actgcaaatt 480
tgataaatt attcaagtcc ccgtgttagt ccacttctca aaacccttca gtgtctccct 540
catttactgc cagtattact actcaggact ggcattgatc agccctcgca catttctgta 600
attaagtttc ccattaattc catttctgtc tgccaggaaa tccccatgac tcaaactggg 660
gatgctattt cttgttcata actcagctca actttacctc cctctctaaag cctttcctga 720
aacctgttct tctccctagc cactctctgt ttgngtacct actctttcct gtcctaggt 780
ctgttagtta ttgcatttat ctattnatgt gtaaaatttt cccctctctg actcgag 837

```

<210> 1509

<211> 125

<212> DNA

<213> Homo sapiens

<400> 1509

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gaattcggcc aaagaggcct aattttatgc atttgttttt cttatttttt tggttgtctc 60
agttatctcg catgttattg agttttttta agatgattgt tttgaattgt caggcaattc 120
tcgag 125

```

<210> 1510

<211> 760

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (349)

<400> 1510

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gaattcgcgg ccgcgtcgac cgactccagc atccagtgtc accatcatgg ctacagatac 60
agcccagcag agcacagtcc ccactttcaa ggccaacgaa atcttggcct cagtcaaggc 120
gaccaccctt ggtgtatcca gtgactcacc ggggactaca accctggctc agcaagtctc 180
aggcccagtc aacactaccg tggctagagg agggcggtca ggcaacccta ctaccaccat 240
cgagagccccc aagagcacaa aaagtgcaga caccactaca gttgcaacct ccacagccac 300
agctaaacct aacaccacaa gcagccagaa tggagcagaa gatacaacna actctggggg 360
gaaaagcagc cacagtgtga ccacagacct cacatccact aaggcagAAC atctgacgac 420
ccctcaccct acaagtccac ttagcccccg acaaccact tcgacgcatc ctgtggccac 480
cccaacaagc tcgggacatg accatcttat gaaaatttca agcagttcaa gcaactgtggc 540
tatccctggc tacaccttca caagcccggg gatgaccacc accctaccgt catcggttat 600
ctcgcaaaaga actcaacaga cctccagtca gatgccagcc agctctacgg ccccttcctc 660
ccaggagaca gtgcagccca cgagcccggc aacggcattg agaacaccta ccttgccaga 720
gaccatgagc tccagcccca cagcagcacc aactctcgag 760

```

<210> 1511

<211> 471

<212> DNA

<213> Homo sapiens

<400> 1511

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gaattcggcc aaagaggcct acttctctag acaaagaggg tctgtcagca ttaagctggg 60
cttgtctgaa aggtcacagg gcagtggctc agtatctggt tgaagaagga gctgcaatag 120
accagacaga caagaatggc cgcacaccct tggacctggc tgccttctat ggcgatgccg 180
agactgtgct gtacctgggt gagaaggagg ccgtgatcga gcatgtggac cacagcggga 240
tgcggccctt ggacagagcc atcggctgcc ggaacacatc tgtagtgggt gcgctactca 300
gaaagggagc caagttagga aatgctgctt gggcgatggc cacttccaaa cctgatattc 360
tgattatact ttacagaaa ttaatggagg aaggaaatgt gatgtacaaa aaagggaaaa 420
tgaaagaggc agcccagagg taccagtatg ccttaagaaa gtttcctcga g 471

```

<210> 1512

<211> 250

<212> DNA

<213> Homo sapiens

<400> 1512

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gaattcgcgg ccgcgtcgac gtttaattcta gtactgtact atcatgttaa ctttttttgg 60
tgacatagcc tggtagtagt gataagttta ttcatcgat tctctcattt gtttctgaca 120
gcacagagag atgtatatct tctttcttct tttatttttt ttgagacaga gtctcactct 180
gtcgccaggc ctggagatca gtgtgacacg atcttggtc actgcaacgt ccacctcccg 240
gaatctcgag 250

```

<210> 1513

<211> 620

<212> DNA

<213> Homo sapiens

<400> 1513

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gcagttgacc tagaccagtt ccagtatttc cagtttgacc gtgtttgacc tacactgagc 60
ttcgggtgcct cagtggatcat aatttttagca agtggaccta taggaagcaa ccctggggagg 120
gaccgtcctt ctgcagaggc ctgcgggcat tgaggctatc aatccccagg gcttggggagg 180
caggagggga gggcaccaag tgctcttact ctcttgagct ccttttgatg cgtaagcttt 240
gtttttggcc ctctttgaag gcaggggcaa acttttctta gtgcctetca ccttaggggtg 300
gccctccagg gaaggtgctc cttgaatggc tggattggcc ctgcccaccg tcaaactgct 360
acatgtagga atagctgatg aggaaataca caaggcctca gtgccccttg gcctctttac 420
aaaaggagaa gttggaaggg gattgtggga ggagccctg ggggcctggt ctgtcctcca 480
ccagaacttg gagttgctgc cagcagagga tctgtgcctc agctgaagac tagctccgga 540

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atgtcatagg ggtgtgactg tgtaggcctt ctctctctcc tcgtttctgt ggcattggcac 600
aggttgcctg gttgctcgag 620

<210> 1514
<211> 236
<212> DNA
<213> Homo sapiens

<400> 1514
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atagtttcta gatataagcc cccctatcat acatgcttta cagaagtttt taccattctt 120
gtggaatata tatattttta tttctttgca tactctttct gccccacca catcctcttt 180
ctgggacact gatgacaaa atgttgaatc ttttactatt gtccccgagc ctcgag 236

<210> 1515
<211> 320
<212> DNA
<213> Homo sapiens

<400> 1515
gaattcgcgg cgcgctcgac atgaggctct gcctgtggag atgcaggcac ctgagccaag 60
gcgtccagtg gtccttgctt ctggctgtcc tggctctctt tctcttcgcc ttgccctctt 120
ttattaagga gcctcaaaca aagccttcca ggcattcaac cacagagaac attaaagaaa 180
ggctctctaca gtccctggca aagcctaagt cccaggcacc cacaagggca aggaggacaa 240
ccatctatgc agagccagtg ccagagaaca atgccctcaa cacacaaacc cagcccaagg 300
cccacaccac cggagacagg 320

<210> 1516
<211> 263
<212> DNA
<213> Homo sapiens

<400> 1516
gaattcgcgg cgcgctcgac attctagacc tgcctcggtc acccccctcc tgccttggtc 60
acccccctcc tgcctgtgct ctgcctcagt taccacctct cctgcccattg ttctgcctgt 120
tacaccaact cctgcccttg gtcacctgc tctgcctgt gctcggcctc agtcaccccc 180
ctctgcctc agtcagcccc tctcctacct atgctctgcc ttggtcacc cctctcctgc 240
ctcagccacc cctctcctc gag 263

<210> 1517
<211> 729
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (33)

<220>
<221> unsure
<222> (36)

<220>
<221> unsure
<222> (96)

<400> 1517
gaattcgcgg cgcgctcgac cctttaaccc ccnaangttc tggctctcatg gcttcagtcc 60
tgagtcacaaa tctctcaggg aagaggctca gcatangtcc tgcgtcctct aagtcagtcc 120
aactgggact gggaggacca ggggtctgag atgcggcaga gacaaggcct aggacttggg 180

```

agtcttacta gaacatggta gctccgcacc ccgcatagcc acgtggctgg ggtgtgagag 240
caaagaggca ggctgcaaga caagggagtt tgaacacggt gtcgttgaaa gaattaaacc 300
agggtgtgtgc ctgagcacct ttagcccaact gcctggcttc agaaatgcaa gcttgcgtgc 360
cgccccaccc agggcccttaa ataatacaag ttaattgaaa gagtttaatt tgaattaatg 420
agattctgtt aaaatattgt taacagttaa gtagataatt attctatgaa caaaacaaat 480
ggctcctgca ggggtctatgt caatgaatag acaccttcat ttacagttgg gatccttcaa 540
ctccaacaga atgatgtaaa tctgttattt gcagaggatt aattaagagg gaaatgaata 600
aaaacagtaa caaacaggtc cccgtctaga tgcagcgggc ggttgacagc aggcctctcg 660
ccgttggttc gatgcaaagt gtaaataatg cattttgcc ttacctttgc cttcaccgac 720
taactcgag 729

```

<210> 1518

<211> 183

<212> DNA

<213> Homo sapiens

<400> 1518

```

gaattcgcgg ccgcgtcgac gccagcagtt cgcagcatgg actcgggtatt ggtatttggt 60
acaggtaatt ggcttctgct cacattaatt aatttattgg aggcgtgggc tctctcttct 120
acccaagctg cagtgcgggtg gtgccatcat agctcactgc agcctcaaac tcttgggctc 180
gag 183

```

<210> 1519

<211> 692

<212> DNA

<213> Homo sapiens

<400> 1519

```

gctcgtatgtc gctgttcttg caggctctct gcattggcctc ctgcttgctg ctttcacccat 60
tgctgggtgga tggcatctca tcactggccc atttagagaa ctccaggtgtg atgcgcgtgc 120
tgggaggggcc gccatttagg actgcgcccc gaagtgcctc tctctccttg gcttcaccag 180
gctcctcgcc tgtgcagggg atgacatcag cctctgtgta ttgtggcttc ccatactcca 240
gagtgatcatc cccatccaca tccaagtcag catcactgtc cgggttctct ttgccgctgc 300
acatgatgaa gccagagcct cggaagccac cttccaggag agtggtggcc cgtatccgct 360
tctgtccaca ccactcatac tcctcaaagc ggttggtgtt ctcatgctcg atgtccacag 420
catcatcctc agccatgcag gagccttccc tctgcccttc atcttgcttc ctccgtttca 480
ttttcccaat ccgagcattc agtcgggtct gccggttggc tcgtactcgc agaaaggtct 540
ggtatctgtc tgaatgggtg aggtcatcgg tggcagatga gtgggggtgat gccgttgag 600
actctccttc cctcttgatg gaagcagaca acaggaggga ctttggggtg cctggagcca 660
tggcatcctt cagaagggaa ttcttgctcg ag 692

```

<210> 1520

<211> 277

<212> DNA

<213> Homo sapiens

<400> 1520

```

gaattcgcgg ccgcgtcgac ccactcccg ctaattttgt atttttggtg gagatagggt 60
ttctccatgt tggtcaggct ggttttgaac tcccgacctc agatgatcca cctcagcctc 120
ccaaagtcct gggattacag gtgtgagcca ccgtgccggg cctttctctt tttttttttt 180
tttttttttt aagagactaa gtcttgctct gtcaccgaag gtggagtgcg gtgacagcat 240
catagtccat tgcagtctca aacacccagg tctcgag 277

```

<210> 1521

<211> 261

<212> DNA

<213> Homo sapiens

<400> 1521

```

gaattcgcgg ccgcgtcgac caaggatatt agaacgtgtt ggttccgcgt gcttccgtct 60

```

```

tgagttatgt gctgctattg tcggatattt tgtcttagat gtacgtactt tctgttcat 120
tgtggatatgt gtaatttgcg ttactttgaa ttttccacgt ttttacttcc tttgtctctc 180
atcacttact gcttttggga cccccccat cggggttcac attccctctc cctagagcac 240
actcccttgg atttctcga g                                     261

```

<210> 1522

<211> 174

<212> DNA

<213> Homo sapiens

<400> 1522

```

gaattcgcgg ccgcgtcgac atttaattta catatgtcct tggcatccac aaatattgct 60
tctcctttca accagcatgc cacccttcca gccattcaca tatgtattca ttcattcatt 120
catttattct ttcattcagt caataaatat ttattgagta gtaatgcact cgag          174

```

<210> 1523

<211> 512

<212> DNA

<213> Homo sapiens

<220>

<221> unsure.

<222> (27)

<400> 1523

```

gaattcgcgg ccgcgtcgac gacggangca gctttctagg gctggaagtc tcaaataaaa 60
ctcacctgtt ccccaaccag ggggtcccag gttcagctca attgttatca tgggtaccag 120
ccaggaagct gtttgtggga aggatgggac ttaactcagg agtggttttag gtatggacat 180
gtgtcagtat tcacaaaaca ggcaatatat tcattataga tgcaatcatg aaacttccct 240
ccagagaagg ctcacatctc ccctttcacc taggaagctc cttagcttga agggccacca 300
cgggtctgat ccagcttcca cccagcccca aatgaactcc catttaattc cttggacatg 360
ccatgacgtt cacggctctg cataacttgc aataactgtt cttccagcct acctgtcttg 420
ctccctgccc caccctgtcct tgtcaaagga acgataactc ttcagctttg tcaagtcctt 480
gtttactcct gttctcccca ccaggactcg ag                                     512

```

<210> 1524

<211> 422

<212> DNA

<213> Homo sapiens

<400> 1524

```

gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt ctagaccggc ctccacccaa 60
taagcaaact ggagattcct cagcctctcg tggacacca catctcattc ttctcacagc 120
agagaagctc tcccttcagc ctgagctgtc ttctttctgc tgcagtgcag cctgctccct 180
cctaccctgg cctcaaggaa ggtgggaaac atcttctgca tttcaaagtc ctcactttga 240
cttatttggc cttcatcttg gcatggaagg tggcaggcag aatggaaata ctcccccaa 300
acaaaacaga tattcttgcg tgtgtaaggg cagaaggagc aagctctcta tcccatgaga 360
ctagggggcg gagccacact gcctttcccc acaacttttc ctgctcaaac cccgtcctcg 420
ag                                     422

```

<210> 1525

<211> 108

<212> DNA

<213> Homo sapiens

<400> 1525

```

gaattcgcgg ccgcgtcgac tgaaagaatg cggcttgctg ttgtaattcg tgctgtagtt 60
gcatctgaat ttgtgctggt gactgtggtg ggtgatgtgc aggttgag          108

```

<210> 1526

<211> 124
<212> DNA
<213> Homo sapiens

<400> 1526
gaattccttc gggtcgactt cccaactcaa ttacagaact gaacagatct ccacacttac 60
ttttcagtga tagtcattgc aaaactacac ttttaagaaca acttggaaga tgctttttct 120
tctt 124

<210> 1527
<211> 245
<212> DNA
<213> Homo sapiens

<400> 1527
gaattcgcgg ccgcgtcgac aaaggctgca catcaacaac aacaagatca agtcttttcg 60
aaagcagact tttctggggc tggacgatct ggaatatctc caggctgatt ttaatttatt 120
acgagatata gacccggggg ccttccagga cttgaacaag ctggagggtgc tcattttaaa 180
tgacaatctc atcagcacc cactgcca cgtgttccag tatgtgcca tcacccacct 240
cgacg 245

<210> 1528
<211> 276
<212> DNA
<213> Homo sapiens

<400> 1528
gaaaagtatc tcatatatag tatgtcccaa atagaatcat tgagtccccc cttccctcc 60
ctaaggcttc accatcagct ttgtgacttt ctatttctac ccatttggtc tgaactctac 120
ctgtcagcct caatctctct tgttctttca ctgtccaaat ctgccttccc tccctcatcc 180
aagacatgtt tgattcttgt ctggactctt gaaacaggct tgtacttcac acttctacct 240
tcactgttgc ttctgcagtc aatcgatccc ctcgag 276

<210> 1529
<211> 139
<212> DNA
<213> Homo sapiens

<400> 1529
gaattcgcgg ccgcgtcgac atccggctta ctttttatg tttttaccaa ctttcatttt 60
tatcatctgg cttacatttt tacttttact atcagactta gatttcttaa aaaagagaga 120
gtttaggagt attctcgag 139

<210> 1530
<211> 224
<212> DNA
<213> Homo sapiens

<400> 1530
gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt ctagacctgc ctcgagaaac 60
ccctcacaat catggcaagc caacgccact tatccagtga accactatca cgaaaaaac 120
tctacctctc tatactaate tccctacaaa tctccttaat tataacattc acagccacag 180
aactaatcat attttatatc ttcttcgaaa ccacacagct cgag 224

<210> 1531
<211> 586
<212> DNA
<213> Homo sapiens

<400> 1531

```

gaattcgcg cgcgctcgac acagaaacta ccatttgaca ccacggacct cattacatac 60
agcatctagt acaatgtaca gtaataccaa tccattacgg agtaattctt ctcttcattt 120
tgcacatcat aaccaattga gattatcaca aaaccaaaac aattaccagc tacaggaccg 180
cactcagttc agtgaccgag acttagccac ccttaagaag tattgggaca atggcatgac 240
cagcctgggc tctgtttgta gagagaaaat tgaagctgtg gcaactgaat taaatgttga 300
ctgtgaaata gttcggactt ggattgggaa tcgaagaagg aaatatcgtt taatggggat 360
tgaagtcca cctccaagag gaggccctgc tgatttctct gacgagcctg agtctgggtc 420
tttatctgca ctacaccag gagaggaagc tgggcctgaa gtaggagagg ataatgacag 480
aaatgatgaa gtatccatct gtttgtctga aggaagctct caagaagagc ccaatgaagt 540
tgttccgaat gatgcaaggg ctcataagga agaggacccc ctcgag 586

```

<210> 1532

<211> 245

<212> DNA

<213> Homo sapiens

<400> 1532

```

gaattcgcg cgcgctcgac atgaaggaac aggagaaagg agaagggagt gatagtaagg 60
agagtccaaa aaccaaatca gatgaatcag gggaggaaaa gaatggagat gaggattgcc 120
agcgaggcgg gcagaagaag aaaggaaaaca aacacaagtg ggttccatta caaatagaca 180
tgaagcctga agtgcccaga gagaaactgg cttcacgccc cactcgccca ccggaaccac 240
tcgag 245

```

<210> 1533

<211> 208

<212> DNA

<213> Homo sapiens

<400> 1533

```

gaattcgcg cgcgctcgac ggcagaccca tctatttgtt gcttctgccc tgctatagac 60
agagaatcag acaaccaaac tcaactggaat gatgtgtaag gaaggagagg cagcctttga 120
aggggtgaca ggtacaatcc tgtaacttg tttcataatct ctgagcttgc tgctgtctgt 180
tctggctgct gaacccacg ctctcgag 208

```

<210> 1534

<211> 245

<212> DNA

<213> Homo sapiens

<400> 1534

```

gaattcgcg cgcgctcgac caagccattg tatttatttt cctaaatatt gataatttat 60
aacctttgat tatctagtga gttgttggcc atttcttatt ttaaagtatt tcagtgtata 120
ataattaaat atataatttt ttcattgtgt ttgcaaattt ttttatgtgc tttgcaaata 180
ttttttccca tctcttcatt tgctgtttga ttctgtttat gctgttcttc ccccaactcg 240
aggca 245

```

<210> 1535

<211> 276

<212> DNA

<213> Homo sapiens

<400> 1535

```

gaattcgcg cgcgctcgac ggagcaactt catataatgc aagaacagca gaaatctttg 60
gatataggaa atcaaatgaa tgtttctgag gagatgaaag ttacaaatat tgggaatcag 120
caaatgaca aagtttttaa caacattgga gcagaccttc tgactggcag tgagtccgaa 180
aataaaggag acgggttaca gaataaacat aaaagagcat cacttacact tgaagaaaaa 240
caaaaattag caaaaagaaca agaacaggca ctcgag 276

```

<210> 1536

<211> 107

<212> DNA

<213> Homo sapiens

<400> 1536

```

gaattcgcg cgcgctcgac aatatagcaa ggagagccaa agctatttct agttaattca 60
ttatgcataa tatagcaagg agagccaaag ctaagacctg cctcgag 107

```

<210> 1537

<211> 232

<212> DNA

<213> Homo sapiens

<400> 1537

```

gaattcgcg cgcgctcgac gctgctttct gctaagtctt gatccatctc ctcttggttc 60
ttctccatat ctagtccacc ttctcttagg acatcactga agaggtcatt aattactttc 120
gaactattga tatcatcatc atccacactc atctcaattt cacttatcac ttcaattttc 180
tgctcaacct ttgggtctga tgttactttt aaggatttgt cctcttctcg ag 232

```

<210> 1538

<211> 260

<212> DNA

<213> Homo sapiens

<400> 1538

```

gaattcgcg cgcgctcgac accatgatga aacgggcagc tgctgctgca gtgggaggag 60
ccctggcagt gggggctgtg cccgtggtgc tcagtgccat gggcttccact ggggcaggaa 120
tcgcccgcgtc ctccatagca gccaaagatga tgtccgcagc agccattgcc aacgggggtg 180
gtgtttctgc ggggagcctg gtggctactc tgcagtccgt gggggcagct ggactctcca 240
catcatccaa caccctcgag 260

```

<210> 1539

<211> 406

<212> DNA

<213> Homo sapiens

<400> 1539

```

gaattcgcg cgcgctcgac cctgaatata cagaatggtg tttctgaagt tcttctgcat 60
gagtttcttc tgccacctgt gtcaaaggcta cttcgatggc cccctctacc cagagatgtc 120
caatgggact ctgcaccact acttcgtgcc cgatggggac tatgaggaga acgatgacct 180
cgagaaagtgc cagctgctct tcaggggtgag tgaccacagg cgctgctccc agggggaggg 240
gagccagggtt ggcagcctgc tgagcctcac cctgcggggag gagttcaccg tgcctgggccc 300
ccagggtggag gatgtctggg gcgtgctgga gggcatcagc aaaagcatct cctacgacct 360
agacggggaa gagagctatg gcaagtacct gcggcgggag ctcgag 406

```

<210> 1540

<211> 618

<212> DNA

<213> Homo sapiens

<400> 1540

```

gaattcgcg cgcgctcgac ggatgaggaa aaacaagggc aagtcactca agaccacaca 60
gtgactgagt ggtgctgaaa ttcaagcctg ggtctgtgag tccagaactc cagctttctca 120
ggtcacttcc tgatcgacac tggagctggg ctctgctgcc ctgagtgagg tgagcaccgc 180
cctgctttga tccaagctga gattcccggt gggccctctc tcacagggtg ggtcctaca 240
gtgcagggtt tgctacttcc acaaaactcag ccaccactga gtgagcattc cctgtgtgtc 300
ctcaccggcc cctttcttgg ttttgggtgg caaagcttct tatctgtgtg tagcaagagc 360
agcctgtttg ggctactgtc cccaagagag tggggctgca cagcaaagta gggcatccgc 420
ttgtcctacc tcaggacagg tgaaaggcag acgggcttgt gagaaaggag gacactttgg 480
ccaaatctga catctatctg gccctgcgt catttcgcca gtccctcggg gagtcagtgc 540
ttaggtcttt cagtggtgac tcacttccac gctgctctgc cacatcccca gccccgctaa 600

```

tcacggaaga acctcgag

618

<210> 1541

<211> 437

<212> DNA

<213> Homo sapiens

<400> 1541

```

gaattcgcgg ccgcgctcgac gagacaccca tccctacgcc agcttgaqcc gtgcactgca 60
gacacaatgc tgtatttctt ctcccagtc cctgatgagc cagcagtata gaccatatag 120
ttttcttact aaattgactg cagatgagct gtggaaaggg gcttttagcag agactggtgc 180
tggagcaaaa aaaggaagag gcaaaagaac taaaaagaag aaaagaaagg atctgaacag 240
gggtcagatc attggtgaag ggcgttatgg ttttctatgg cccggactga atgtccctct 300
tatgaaaaat ggagcagtg agaccattgc ccaaagaagc aaggaagagc aggagaaggt 360
ggaggcagac atgatccagc agagagaaga gtgggaccga aagaagaaga tgaaggtaa 420
acgggagctt cctcgag                                     437

```

<210> 1542

<211> 544

<212> DNA

<213> Homo sapiens

<400> 1542

```

gaattcgcgg ccgcgctcgac ctggaatcat gagcaacaat ggagcagacc taacctttgg 60
ttacatctcc tgtttttag ctatcctttt gtttggtc aattttgtgc cacttaaaaa 120
atttgatact ggtgatggaa tgtttctcca gtgggttctt tgtgctgcca tatggttgg 180
tgcttgggtt gtcaatctga tattacattg tccaaagtgt tggccttttg caatgcttgg 240
gggtgcatt tgggcaacag ggaacattgc tgttgctcca attatcaaaa ccattggttt 300
aggccttggg atcttaatct ggggatcatt taatgcctta actggctggg caagctcaag 360
gtttggctgg tttggattgg atgcagaaga agtatcaaat ccgctgctaa attacattgg 420
agctgggcta tcagtagtaa gtgctttcat atttttgttc atcaaaagtg aaataccaaa 480
taacacgtgt tccatggata ccactccatt aataacagag catgtgatca acacaacct 544
cgag

```

<210> 1543

<211> 555

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (58)

<220>

<221> unsure

<222> (80)

<400> 1543

```

gaattcgcgg ccgcgctcgac agaaccacat ttttttgcca cacacacaca cacatacnng 60
tgtatagata tatatatatn gtttataggc aagaaaacca acttttgaaa gaatatatct 120
ggctcaaaat ttataaggaa aaaacattac ggagttctgt ttttttctga ttagttgtgc 180
ggtctgaaag tagaagtgga tatggagaaa attgcagctg agattgcaca ggcagaggaa 240
caggccccga aaaggcagga ggaaggggag aaggaggccg cagagcaagc tgagcgagc 300
cagagcagca tcgttcttga ggaagaacaa gcagctaaca aaggcgagga gaagaaagac 360
gacgagaaca ttccgatgga gacagaggag acacaccttg aagaaacaac agagagccaa 420
cagaatggtg aagaaggcac gtctactcct gaggacaagg agagtgggca ggaggggggc 480
gacagtatgg cagaggaagg aaccagtgat agtaacactg gctcggagag caacagtgca 540
acagtggagc tcgag                                     555

```

<210> 1544

<211> 457
 <212> DNA
 <213> Homo sapiens

<400> 1544
 gaattcggcc aaagagccta ggctactggt catagttaa aataaacatg ttcataatc 60
 tcaagattaa agtttatttc aatttccttg agtgattat attttgctt ttgtttgtt 120
 acattttgac tatctttctt gataaagatt cgctctccag ctttataatt tttttactga 180
 ggaaactcat tttgatggga ggtgctttgt tttagtttct ttccatcca cagatgtact 240
 cctcatcaga tgttttgaa gttccctcag tctggctctt ggagtccatt tcagaagtag 300
 atattttgct ggacaccta ggttcttctc tcatagagat atttcacttc tgttccctaa 360
 atcaagaagg ttgtcctcca agtttttagt tacacagtg tctctgttcc tccattaac 420
 gcctaaaccg tcgattgaat tctagacctg cctcgag 457

<210> 1545
 <211> 414
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (171)

<400> 1545
 gaattcgcgg ccgcgtcgac tcttgcaaaa atgtccttct cttgccagaa agaaggcat 60
 ttaaaaagtc aggcagggga ataggaggt attgttaatg ggtaccaaatt ttcagtttgg 120
 gaaggtgaaa gaattcttga aatgaatgtg atgattgcac aattaatgta nttaatacca 180
 ctgaaatgta tacttaaaag ttattaaaat ggtaaaattt atgtatatct caccacagtt 240
 gaaaaaaaa agccaagtaa tacaagtaga agtaattgtt attaaacttt ttagtttatt 300
 tttaaattgt ttttcaaac tttggggatt ttagagatgt gttccttgag tttgattttt 360
 ttccctgtc atctctcaat ttagtttctt tcttttgcc aggaagagct cgag 414

<210> 1546
 <211> 547
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (71)

<220>
 <221> unsure
 <222> (241)

<400> 1546
 gaattcgcgg ccgcgtcgac ggcaagaagg aaagaccaag atcataaata ttaatggtga 60
 aaacactgta ntaataaatt ttcatatgcc aaaaaaaaaa aaaaaaaatt ggggggaaat 120
 tttttgaaag ttaggagata aatacatttt ctgatatttg ataaaccatg ctattggtaa 180
 gcttgacatt gtgctatggc aaaattctat gccgtaatga aacagctggt ccataacctt 240
 naaaaaataag aatgacaccc aataataaca agtttaatca gtctaacttt tttttattgt 300
 tgcttatttg agagaccatt tatgggaaca ctaaacacat agacgtgtct aagttttttc 360
 ttagcttttt tctaatactg aagcatactt tacatagaga aaaccatacg aaatttttaat 420
 ttacagctca gtgaactgtt acaaggccaa tattaatgta tcgcccaccc aaataaaaaa 480
 aatgaacatg ggtaacactg taatcaaat gcaattaaaa catcattccc tcccactcac 540
 actcgag 547

<210> 1547
 <211> 515
 <212> DNA

<213> Homo sapiens

<400> 1547

```

gaattcgcgg ccgcgctcgac tggctgcgag tacctccatg gtcccgggtg ctgtgacggc 60
ggcagtggcg cctgtcctgt ccataaacag cgatttctca gatttgcggg aaattaaaaa 120
gcaactgctg cttattgcgg gccttaccgg ggagcggggc ctactacaca gtagcaaatg 180
gtcggcggag ttggctttct ctctccctgc attgcctctg gccgagctgc aaccgcctcc 240
gcctattaca gaggaagatg cccaggatat ggatgcctat accctggcca aggcctactt 300
tgacgtttaa gagtatgac gggcagcaca ttccctgcat ggctgcaata gcaagaaagc 360
ctattttctg tatatgtatt ccagatatct gtctggagaa aaaaagaagg acgatgaaac 420
agttgatagc ttaggccccc tggaaaaagg acaagtgaag aatgaggcgc ttagagaatt 480
gagagtggag ctcagcaaaa aacaccaagc tcgag 515

```

<210> 1548

<211> 643

<212> DNA

<213> Homo sapiens

<400> 1548

```

gaattcgcgg ccgcgctcgac ggtgatccac ccgccttggc ctcccaaagt gctgggatta 60
cagggtgtgag ccaccatgcc cggcttggtt ttataaagt agcaaatatg atcttttctc 120
tggatgatag ccaacatagt tgtaatgaat aaaatgttac agaagacata acatatgaaa 180
agttattagc taactatctt atttcaatgt gatggactaa accacacact gcatttaggc 240
ataactttga gctgatgact tcctgtactg tccccacca attgtcacc ctcagagggc 300
tgccacacta cctcttgggt ggacacaggaa ttgggttggtc tgggctttta aaatcagatt 360
catctttctg aattccttcc tcagtttctt tcccatctgc ctactcctg tgcccatcc 420
gggcattcca ggccaacccc caagtgtctg gccacggaag tgaatatgtt tgggatttaa 480
atcatcagtt gcctttgaaa gtcacgctgc aatagacaga taacttggaa tgcaggtgag 540
gcagagaatt cactgccatc aagtcgcagt gtaaataaga tcacagaggt gatgataacc 600
tttcacgggt tgatgatagg ttaatgaaaa aagaactctc gag 643

```

<210> 1549

<211> 588

<212> DNA

<213> Homo sapiens

<400> 1549

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gaattcgcgg ccgcgctcgac gacctgcctc gcgtccttgg ctccaagca cctttccgaa 60
gagtggccaa aaacaggcca gcatttttaa tactttggga atgggttggc caacatttga 120
aaaagctgca gcttagcaga tatgtcaca agctacatct tctaaagcct gacattgggt 180
aggaattaag gtcgggtcca ggtctcagta ttaataattc ttctcttta tcacctgaat 240
tttgcgtgaa agcagtgtg accaatagaa acataatatg aattatata gtgattttca 300
acttcctagg caccattttt aaaaagtaaa aagaaactgg gagaaataat ttattttaac 360
tcaatgtgat catctcaaat atgatctcag atatgatcat ttcaacatgc agtcaatgtt 420
ctaaattatt tacgagatac tttaccttct ttttttcaa atctttaaa tccagcatat 480
agtttacact tacagcatat cccagctgag accatccaca tctcaggggc tcaggaaata 540
cacaaggtaa gctgaacagc tcgctgtctc aggattagct gcctcgag 588

```

<210> 1550

<211> 744

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (238)

<400> 1550

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gaattcgcgg ccgcgctcgac ggcattctat ttttcagggt agctatttcc tcttatttat 60
ggattattac aggtcttctt aaaaagtatt aaatgatagt agaaaggcag atctgggcag 120

```

```

ggcacggtgg ctcattgctg taatcccaac agtagattgg gaggttgagg tgagaggatc 180
gcttgaggcc aggagttcga gaccagcctc ggcaacatgg tgagacgctg tctctacnaa 240
gaaattttta agattggctg ggtatgctgg tatgtgcttg tggctctcagc tactcgggag 300
gctgagaggt gggagtagtg ctgagcccgg gaggtcaggg ctgcagtgagg ccatgatcgc 360
gccactgcac tcccagccag aatcacatga gagcctgtct caagcaaaca aacaaaaaat 420
gattcttgcc actgagctta agaaaagaaa aagggaaaaa aaggcagatc tgaattccct 480
ctagatcccta ccttttcaag ggagaaaaga gaggacagag ccaagggcag aggaaaagct 540
tagggagaga aaatagcaaa aatgaaaaat ttacacttat ttcaaaagat agactttctg 600
ttttgaatct ttggaacatc tgttttgatc agactgaaaa tagttggacc acatgttttg 660
tgtttcaact gaacattcca gagagaagat tataattctg aaggtgtctg ttcataaaga 720
ctggtatttc ccatatctct cgag 744

```

<210> 1551

<211> 529

<212> DNA

<213> Homo sapiens

<400> 1551

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gaattcgcgg ccgcgtcgac ctggaatgca aacaacagaa aattatctta ctgagaaggg 60
aaatgaagaa aacgtgaaat ttccccccaga acaccctgta gagaatgatg ttacacaaac 120
tgtaagtctt tctctacttc cagcctcttc aagatcaaaa aaattgtgtg atgttacaac 180
aggacttaaa atacacgtgt ccattccaaa tagaattccc aaaattgtaa aagaagggtga 240
agatgattac tacacagatg gagaggaaag cagtgatgat ggggaagaaat accatgtgaa 300
gtccaaagtc gctaaacat ctactaacgt taaaaaaagc ataaggaaaa agtattgcaa 360
agttagctcc tcttctctct cctctttatc ttctctatct tcaggttcag gtacagattg 420
tttagatgca gggctctgata gccatctatc tgattcgtct ccgtcatcta agtcatctaa 480
gaaacatgta tctgggtataa cctcctgtgc accaaaacac aatctcgag 529

```

<210> 1552

<211> 438

<212> DNA

<213> Homo sapiens

<400> 1552

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gaattcgcgg ccgcgtcgac atgaaatgca gaatacacat ttttggatcc aggaagtgtt 60
acttacgtgc ccgtaacaat gtaatttttag gccaggtgca gtggctcatg cctacgggtcc 120
tagcactttg gaaggttgag ggaggatgat cgcttaagtt cagttgttga aatgcagaat 180
acacattttt ggatccagga agtggtactt acgtgcctgt aacaatgtaa ttttaggcca 240
ggtgcagtggt ctcattgccta cagtccatgc actttggaag gttgagggag gatgatcgct 300
taagttcagt tgttgaatg cagaatacac atttttggat ccaggaagtg ttacttacgt 360
gcctgtaaca atgtaatttt aggccagggtg cagtggctca tgcctacggt cctagcactt 420
tggaagggtg aactcgag 438

```

<210> 1553

<211> 710

<212> DNA

<213> Homo sapiens

<400> 1553

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gaattcgcgg ccgcgtcgac atcacattgc agttaatata gaaatactgt ttatacttat 60
tcaaaattat agtaacacat cactgaattt attgaatgca acagagaagc acatatatat 120
atcgcgctta ctttttatga ctgttttaat agaattagtt ttcttgtaaa tcctgtgtat 180
atttaagaac agtattcaga gaagagggtta agaagcgtca tcctatagta aaagagatgt 240
aaggcataga gaaagtgttg aacttctttt gtaacagcga taatcccaag cttgtcctaac 300
ctctcagtggt gtttagaatg agtctctagg ttgtggatat taaggaaaaa ttgtttcata 360
taataaaactg cttgatttta acttttaggc aaatttggtg actactgaga cagcgggtttg 420
aagggtatcag attcactatg gaaactttta ggaaataggt tcccctagtg aaacttggtta 480
aactaaataa agcccatgag aatctaakat gcctttcaga aaatatgtgt tgaaagctat 540
tgacacctt ttgatgcaca gtgtaggatt catattcttt tgactaatac tgggtgttga 600
ataccatttg cttcctgcgg tgcacagaaa tttggagtag ggagtgaaaa caaagtattt 660

```

gctatgtttt ggtctggagg gacagaaaaga aaaacaagct agctgccaaa

710

<210> 1554

<211> 677

<212> DNA

<213> Homo sapiens

<400> 1554

gaattcgcgg ccgcgtcgac gattttacta tctttaaacg aatgatggtc cagaaaaaca 60
 ttgaaatgca gctgcaagcc attcgaataa ttcaagagag aaatggtgta ttacctgact 120
 gcttaaccga tggctctgat gtggtcagtg accttgaaca cgaagagatg aaaatcctga 180
 gggaagttct tagaaaatca aaagaggaat atgaccagga agaagaaagg aagaggaaaa 240
 aacagttatc agaggctaaa acagaagagc ccacagtgc tccagtgaa gctgcaataa 300
 tgaataattc ccaaggggat ggtgaacatt ttgcacaccc accctcagaa gttaaaatgc 360
 attttgctaa tcagtcaata gaaccttttg gaagaaaagt ggaaagggtc gaaacttcct 420
 cctccccaca aaaagacctg aagattccctg gcttagagca tgcgagcatt gaaggaccaa 480
 tagcaaactt atcagtactt ggaacagaag aacttcggca acgagaacac tatctcaagc 540
 agaagagaga taagttgatg tccatgagaa aggatatgag gactaaacag atacaaaata 600
 tggagcagaa aggaaaaccc actggggagg tagaggaaat gacagagaaa ccagaaatga 660
 cagcagagga actcgag 677

<210> 1555

<211> 536

<212> DNA

<213> Homo sapiens

<400> 1555

gaattcgcgg ccgcgtcgac attgggcatt tccagaatac cattcgagaa atgttttctc 60
 agttcgcaga gtttgatgat gaactggata gcatggctcc agtggggaga gatgcagaaa 120
 cattgcaaaa gcaaaaggaa actataaaag cctttctaaa gaaactagaa gccctcatag 180
 caagcaatga caatgccaat aaaacctgca agatgatgtt agccacagaa gaaacctctc 240
 ctgaccttgt tggaaatcaaa agggacttgg aggccttaag caaacaatgc aacaagttac 300
 tggaccgagc ccaagccaga gaagagcagg ttgaaggagc aattaagcgc ctggaagaat 360
 tttacagcaa attgaaagaa tttctattc tgcctcagaa agccgaagaa catgaagagt 420
 cacaagggtc tgttggtatg gaaacggaga caattaatca gcagcttaac atgttcaagg 480
 tattccagaa agaagagatt gaaccttgc aaggtaaaca gcaagatata ctcgag 536

<210> 1556

<211> 575

<212> DNA

<213> Homo sapiens

<400> 1556

gaattcggcc aaagaggcct actattattc tcatgggtcag tagcaacttt tggttcaaat 60
 atcccaaac atgctcaaaa gtagaacatt ttgtttcaat attaggaaag tgctttgaat 120
 ccccttgac gacaaaagcg ttgtctgaga cagcatgcga agactcagag gaaaacaagc 180
 agagaataac aggtgcccag actctaccaa agcatgttcc taccagcagt gatgaaggga 240
 gcccagtg cagtacacca atgatcaata aaactggctt taaatattca gctgagaagc 300
 ctgtgattga agttcccagc atgacaatcc tggataaaaa ggatggagag caggccaaag 360
 ccctgtttga gaaagtgagg aagttccgtg cccatgtgga agatagtgac ttgatctata 420
 aactctatgt ggtccaaaca gttatcaaaa cagccaagtt catttttatt ctctgctata 480
 cagcgaactt tgtcaacgca atcagctttg aacacgtctg caagcccaa gttgagcatc 540
 tgattgggta tgaggatatt gactgcaccc tgcag 575

<210> 1557

<211> 699

<212> DNA

<213> Homo sapiens

<220>

<221> unsure
<222> (7)

<220>
<221> unsure
<222> (9)

<220>
<221> unsure
<222> (40)

<220>
<221> unsure
<222> (59)

<220>
<221> unsure
<222> (89)

<220>
<221> unsure
<222> (105)

<400> 1557
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aatcatgcta ttaggattaa aaaacttcnc aagggcacgg ttctntttca tccccattca 120
gatcaccggtt ttctggggcac ggtaaaaaaa gaagccactt ttccaatcc taaaaccact 180
agcccaaata aaggcaaaga gaaggaggct gaggatggca ttattgctta tgatgactgt 240
ggggtgaaac tgactattgc ttttcaagcc aaggatgtgg aaggatctac ttctcctcaa 300
ataggagata aggttgaatt tagtattagt gacaaacaga ggcctggaca gcaggttgca 360
acttgtgtgc gacttttagg tcgtaattct aactccaaga ggctcttggg ttatgtggca 420
actctgaagg ataattttgg atttattgaa acagccaatc atgataagga aatctttttc 480
cattacagtg agttctctgg tgatgttgat agcctggaac tgggggacat ggctcgagtat 540
agcttgcca aaggcaaagg caacaaagtc agtgcagaaa aagtgaacaa aacacactca 600
gtgaatggca ttactgagga agctgatccc accatttact ctggcaaagt aattcgcccc 660
ctgaggagtg ttgatccaac acagactgag tacctcgag 699

<210> 1558
<211> 651
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (632)

<400> 1558
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aactggggtg ggggaggact gtgcctctct tgaccttcat ttacaaaaaa taagtgggct 120
cctagaccgg tggttgagcc aactgcccg ggacagccct gaagcagcca cgtccccacc 180
tttcaggagt cggccaagag cagggtggct gcagaaggcc ctggctgatg gagataacat 240
ttgacaaaaca gggtgagcgc cttccccctc cgccccctct ttagaaaccc ggcgttcttt 300
atggctttgc tcaggtagat cattcattgc cataaatttt cttatctcca gtgcttttcc 360
aattatggat aacaacagaa aagcagtcct tggtttctaa aaggtcatca agatataaag 420
ccggtttggg aagggaatga cttacgcagt gggcttgat aaatctggag aagttttatg 480
cacaagtcgg acaagaaatg taagttagat tcataaaata tataacgatt catggtgtct 540
cggctgatga aaattgtctt tccttttgct gtttgtgtgg gaattatttg ttctttccag 600
gtgttctaca tacggctcgg gagccagcaa gngcttatga agccctcga g 651

<210> 1559

<211> 560
<212> DNA
<213> Homo sapiens

<400> 1559
gaattcgcgg cgcgctcgac cgagtggctg ggactgcagg cgcccgccac cgcgcccagc 60
tagttttttt tgtactttta gtagagacgg ggtttcaccg tggctctgat ctccctgacct 120
cgtggctcgc cgcctcggc ctcccaaagt gccaattctg actctactta aacatcacct 180
gtatcaggga gctcattatt ccttgaggtc ttacatttct ttcagcacat ttgtttccaa 240
gctacacatg actttaaaac agagccagcc tttggggcat atgttctctt tgggtgccaca 300
caaaacctgt agtacatgat acagtgttgc tccccctc cttttccttc catatatatt 360
tgttttggtt tgggcattgc attacttttt tgaattttta agaattctta aaattagtct 420
gaaggatggt ctgagggcca gacattagaa tttgtgagtt tttttgttgc tggttgtact 480
ttctatttta gaagacagac cgttctgaca gttgttgtgt agcttcatgc cttccccagt 540
aactaaccga tgaactcgag 560

<210> 1560
<211> 625
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (116)

<400> 1560
gaattcgcgg cgcgctcgac ttgagatgag actctgtcgc caggctggag tgcagttgca 60
cgatctcatt tcactgcaac ctccaccgcc cgcgttcaag cgattctcct gcctcngcag 120
cctcccgcca ccattgctcag ctaatttttg tatttttagt agagacgggg ttccaccatg 180
ttggccagga tggctctgat ctcttgacct catgatccac ccgcctcggc ctcccagagt 240
gctgagatta caggcgtgag ccaccgctcc tagcctataa tcataattgt aataattgta 300
ctttgtgtag cactttacaa tggcgaagag ttttcagaaa taaccatatt taatcctcac 360
acagctatag agtaggtggc atatgacctg gattttctat caatttcagt ttcatatttt 420
ttgtcctgtc atccctttga gtgtccttcc agtttttgat ttgggaaata atgctaccat 480
accggtggat ggggcaactt ttcccttctt tccatttggg ctgagcaga ctgagactca 540
agacttgatt tgatttatac tcactatggt agaagataag gaaccaagtc cagaacacac 600
attttacaaa ctccgagctc tcgag 625

<210> 1561
<211> 667
<212> DNA
<213> Homo sapiens

<400> 1561
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atccttttaga gcacctgata tcacattaaa taatatgata cctgaatatg tatttcagtt 120
gtttctccca ctagaatacc agggtaggaa ttttcttttg ttactgttg tatctgtagt 180
gtccagagca gtgcctagca tgcagtgaat gcttattaaa tattttttga atgaatgaat 240
tataagacac ttggaagctg aggggaattta ttataaacag agtttaatcc ctgaaaggag 300
tcctgcacag agattgtcaa tcaaatcata gttttgaagt ctgtgttcta tgtctaagat 360
tgtattgagc cctttttaa atgaaactgga agataaacgt ggtccctact ctgattctaa 420
gagcttttat actaaaagga aagagaatgt catgagcatt tatgtatata gcaaggcatt 480
accatcaaca gccattaaaa ggggaggttt gtcaagggtg tcgtgagtca gttgagtatt 540
tggcctcttc acacgtgtga gaggtctggg gctggtgggg agctcacata ggcgtaacag 600
cccatgttca aatccagctt cactgcttag tgtttgcatt acattggcaa gggttgactg 660
cctcgag 667

<210> 1562
<211> 676
<212> DNA

<213> Homo sapiens

<400> 1562

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gaattcgcg cgcgctcgac gtcctgggccc tgcacgtaaa gctagccccc tgccccacgg 60
aaatggcaag cagtgtcttc ctccaggggt tctacatctg tgctccatct caaaatgcat 120
aaaagcctga gtcattcaga tgggagagac agtgtttcta ctctctctta gttgggggtc 180
ctccagaagg agaccctgag agaggacttg aggttatgta gtttatctga gtgaagatcc 240
cggaagtagg gagagaagga agctgacggg gaaggcgtgc attatcaagt aagttaccgt 300
catgtgcaca actggagctg aatcccactg gggaaccccg agagacagag ctgacacccc 360
agagttcacc cagcaaggcg gggagacagc tggggtatctt attcaccaag tctatcactt 420
atgaaaggct gtttctggaa acaatttctg actggccctg cacacacctg agcatacttc 480
ctaagccggg gatgtccctg agctgagaca ggcgttcgtg acaagcagac ttcgagtggg 540
aggcaggcat cagaaccacc ctgtgagctg gttcagacaa agattgcagg cccttccacc 600
cccctggccc cgccaagttc ctgactccct aggtctggag tggggcccg gaatttgc 660
ttcaaaaaat ctcgag 676

```

<210> 1563

<211> 573

<212> DNA

<213> Homo sapiens

<400> 1563

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gaattcgcg cgcgctcgac atgcctgat ctttttccag aagagattca cttaatccta 60
tgacagtgc gttcagacct gactggagta ctacaaatgt agtttgatct gtgcctggta 120
gataatttaa attgaccgac tccaaggtag ttatatgtta agtcagcatt tgccttccct 180
tttgttcaca aataaaagca agagcctttt tactttccaa atgattttta aatttagatt 240
gaatttgtcc aaaggaagaa aaatatattt aatttttttt tctttttttg agacgggggtc 300
tactctgtt gccaggttg gagtgagtg gcatgatcat ggcttactgc agtcttgaac 360
tcctggactt aagcgattgc cccacctcag gcttgtcagt agctgggact acaggtgtgt 420
gtcaccacgc ctgactaact ttttaaaatt tttgtaaaga tggcatctct gttgcccatt 480
ctggtcctga actcctgggc tcaagcagtc ctctcgctc agcctccaac atgctagggtg 540
actatagggtg tgaaccattg caccagactc gag 573

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<210> 1564

<211> 601

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (21)

<220>

<221> unsure

<222> (26)

<220>

<221> unsure

<222> (57)

<400> 1564

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gaattcgcg cgcgctcgac ntgtcnagga tgggtgtgggt gtcattgccc tgcaacnaca 60
ggaatcgag gaaggtagc agcaaaagc gctctgagat actccgtagg aaaagttcca 120
gggtggcggt actggcgatc atctctctcca cagaggtctt gtgcaaggca ggacccatga 180
caggcaccag gaaccatta tggatataat caaccaactg ctctctgcacc aggggggtgag 240
ccacctgaat tactgcattg cagaactcca gggaactcat gaagagtgcagg agggctggca 300
ctcccagcca gtcttcccg cgcagacagt gccaatcacc ccctgggaacc tcaatctttc 360
gagggcagtg tgagtacagg gcaactgagc ctgtggccag caccgggagc aagtaagagt 420
gatccgcgat gtagcggccc acagtggggc tcccagctga caaagccatg agaagaagta 480
gggcatcacg ggcctgctgg cccagggtgc cctctcgatg caaaaaggg acaaggcgag 540

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aaaagagaag aagacgggga gcggtccag gctcaggagg tggctgcagg aagaactcga 600
g 601

<210> 1565
<211> 195
<212> DNA
<213> Homo sapiens

<400> 1565
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atgggtgattt tattttttta actgaaaatt taagaattaa ctccagataa taataacacc 120
ctcattttctt ataaactaac tacttgaatt taactttttg ccatgcccc ccaccgccat 180
caggcatcac tcgag 195

<210> 1566
<211> 293
<212> DNA
<213> Homo sapiens

<400> 1566
gaattcgcgg ccgcgtcgac cgagattact ggcaagtctt ttagattttt tacagccttt 60
ctcataacag cctctttctc ttttgctcct gttggtaacc cagtatgagc tattatgagt 120
tttattcttt gcctattgaa atagcttcca aaccaatgtc tgattataat ttgtaccttc 180
tctgttccac cctattttct agattgttcc ttctaagtcc acatttaato cattgttcc 240
aagtctctct tcttttacag aatcaagttc agactttcgg gacttcactc gag 293

<210> 1567
<211> 715
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (145)

<220>
<221> unsure
<222> (226)..(227)

<400> 1567
gaattcgcgg ccgcgtcgac ccaagacact caatggaata tgtcacactc cttaataggg 60
acctgtgact ccttaataag gacctgtgac atgcccagca tcaagggata agaccgtaaa 120
ttcacatata tgccatctgt cctcnagtgt tatctacata ggaaataaaa tgggaattgat 180
gtaaagttcc atttctgacc gctgacattt attaaacttt ggatcnaga taatgtgatt 240
cttatgattg atttctcaaa ctagcttttc cctcccaagt ccaggaccca ttaatttcct 300
gagccaatca gaaatatatt tttcaataat gctaaaatta gctacaattc tgctgaccct 360
actattaaag aatctggatg ctggactcat tgacaagctt tccagaagca attttataac 420
agatttcatt ttaacaaaat actgatccaa ttttcattat tcttgagaaa tgtcagcttt 480
gccttaatga gtatttgctt taaatttcta agaatttata tcataactag agacccaaat 540
atctttcaca gaattttgtt ccataaatgt ttttcttaat tattaagaag tgttacctta 600
ttaaaatgac caccattcta aaccattttt cagtggctcg gatacgaagt ttacagtttc 660
ataccaacta tctaaaacct aattgcaaat tgaccacaga cccctaaccc tcgag 715

<210> 1568
<211> 556
<212> DNA
<213> Homo sapiens

<220>
<221> unsure

<222> (21)

<220>

<221> unsure

<222> (57)

<220>

<221> unsure

<222> (65)

<220>

<221> unsure

<222> (116)

<220>

<221> unsure

<222> (185)

<220>

<221> unsure

<222> (188)

<220>

<221> unsure

<222> (278)

<220>

<221> unsure

<222> (281)

<220>

<221> unsure

<222> (312)

<220>

<221> unsure

<222> (327)

<220>

<221> unsure

<222> (434)

<220>

<221> unsure

<222> (438)

<220>

<221> unsure

<222> (462)

<400> 1568

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gtgacagcct caggcgatgt ctgtctcgaa gctctcaggt tagaagaaaa ggaagtacgg 180
catcntanga ttttagaggc gaaatcgata ctgacttccc ccacggaaga gggcggggtg 240
ctgacactgc ctctgtgga tgggctgccg gggcgctcnc natgcccccc tggggctgaa 300
agtggacctc anacaaagtt ctgttcngag atttctttga ttgtgtctcc aaggcgaata 360
tcagtccagc tcgacagcca tcagcccaca cagagcatct cacagcctcc accacctcca 420
tcccttctgt ggtntgcngg gcaaggacag cctgggtcac anccgccccca ttctatttct 480
accgagtttc aaaccagcca cgaacactgt gtttcctctg cctttaaaaa cagctgaaac 540

```

atcccatctc ctcgag

556

<210> 1569

<211> 673

<212> DNA

<213> Homo sapiens

<400> 1569

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gaattcgcgg cgcgcgcgac gcatgagctt ggccaatgta ccccttgagg agcagcggtc 60
tcgcttcctg gctgtggggc ttgtggacaa cactgtcaga atcatctccc tggatccctc 120
agactgtttg caacctctaa gcatgcaggc tctcccagcc cagcctgagt ccttgtgtat 180
cgtggaaatg ggtgggactg agaagcagga tgagctgggt gagaggggct cgattggctt 240
cctatacctg aatattgggc tacagaacgg tgtgtgtctg aggactgtct tggaccctgt 300
cactggggat ttgtctgata ctgcactctg gtacctgggg tcccgctctg tgaagctctt 360
ccgagtcgca atgcaaggcc aggaggcagt attggccatg tcaagccgct catgggtgag 420
ctattcttac caatctcgct tccatctcac cccactgtct tacgagacac tggaaatttg 480
atcgggtttt gcctcggaac agtgtcccga gggcattgtg gccatctcca ccaacacctt 540
acggattttg gcattagaga agctcggtgc tgtcttcaat caagtagcct tccactgca 600
gtacacaccc aggaaatttg tcatccaccc tgagagtaac aaccttatta tcattgaaac 660
ggaccctctc gag 673

```

<210> 1570

<211> 459

<212> DNA

<213> Homo sapiens

<400> 1570

```

gaattcggcc aaagaggcct acttgcatth attcagtaag actaattaac aaaagttgtg 60
agtaaacacc actagagggt aaaattaaag gccagggtcc caggcctaaa gcaaacacca 120
tttgtgggta ataaactgcg gacccccgag taggcggcag taaagtaccc tcagcaggac 180
aaaagttagt cttaagccca tataactaaa cagggttagta agataaaact cctacattcc 240
ttttcacttg caccctaate ttcttgccct cctgcaaaga gacctgggt gccttcagcc 300
aagcaatcaa gctatgcaaa ctctcaggcc ttttaggaca gcttttgact gttactcttt 360
taaataatth tcccaccagc ctgattgaac cccaacaccc agctctgctg aggggtacagg 420
aattggccag acatgggtggc acacacctct tagctcgag 459

```

<210> 1571

<211> 551

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (340)

<400> 1571

```

gaattcgcgg cgcgcgcgac aggtgaggga ggatgtgact ccaggggccc cagtactccg 60
agtcacagcc tcggatcgag acaaggggag caatgccgtg gtgcactata gcatcatgag 120
tggcaatgct cggggacagt ttatcttgga tgcccagact ggagctctgg atgtgggtgag 180
ccctcttgac tatgagacga ccaaggagta caccctacgg gtgcgagcac aggatgggtgg 240
ccgtccccc a tctctaatg tctctggctt ggtgacagta caggctctgg atatcaacga 300
caatgcccc atctttgtca gcacccttt ccaggctacn gtcttgagga gcgtccccctt 360
aggctacctg gttctccatg tccaggctat cgacgctgat gctgggtgaca atgcccgcct 420
ggaataccgc cttgctgggg tgggacatga ctcccccttc accatcaaca atggcacagg 480
ctggatctct gtggctgctg aactggaccg ggagggaagt gatctctaca gctttgggggt 540
agaagctcga g 551

```

<210> 1572

<211> 677

<212> DNA

<213> Homo sapiens

<400> 1572

```

gaattcgcgg cgcgctcgac ggcactgagt cgggtggcgaa gacgggaacg cgacgatggc 60
ggagactctg cccgggtcgg ggcactcggg ccttggcacg gcttctctcg gcccgggct 120
tgcggagact gggacgaggg ggctcagcga gctcggggtg atcgatctgc gggcggagct 180
gaagaagcgg aacctggaca cgggcggcaa caagagcgtc ctgatggagc ggctcaagaa 240
ggcgggttaa gaagaggggg aagatcctga tgaattggc atcgagttag aagccaccag 300
caagaagtca gccaaagagat gagttaaag actgaagatg gaggaggaa gacagaaga 360
taatggcctg gaagacgatt ccagagacgg gcaggaggac atggaagcaa gtctggagaa 420
cctgcagaat atgggcatga tggacatgag tgtctagac gaaactgaag tggcgaatag 480
cagtgtctca gattttgggg aggatggcac ggacggcctt ctcgattcct ttgtgatag 540
taaagaatac gtggctgcac agctgagaca gctcccggt cagccccag agcatgctgt 600
aggtggatgg ggaaggattt aagaacactt tggaaacttc atcgttgaac ttcaaagtaa 660
ctccggacat tctcgag 677

```

<210> 1573

<211> 757

<212> DNA

<213> Homo sapiens

<400> 1573

```

gaattcggcc aaagaggcct aggtgaatg aaatcatggt cacagtttta aaggaagagt 60
ttccagtatc aaaaccaggt ttgaatgtct taccacatt tcacagacac cagcagtgct 120
atcagcacag tatgaacctc acagcccgta tctcgggtgt gtcttaattc acatctatga 180
tcccaaacct gtgttccaca ggtatcatgcc cacacatggg tccataacaa ttatcccatc 240
tcctctgggg ctgagtctga gtccataaat ttccctcaac acagaagaca cggctgtcac 300
cagccctccc tctccaggtc agtggggact cagcgcaggt cggctctcatg gtgaccagac 360
ggagcgcact gtgctacctg ccgcgtggtc tgcccattag aaacttcgta gagtgcctgt 420
gagccatgag gaagcctctg gggaaagcag tgccctggaa aatgccctcc actttccacc 480
tggacaccag gcactgcggg gacacggcca gtcctgtgtg cccaagaaca accaaggagg 540
ctggcacacg agggaggagg gcatcttaag gccgaattgg ggtccaaaga ggcaaaactc 600
acagcggatg gccgagaagc tcccccaagc acaggcacca tcaggcagcc tcaaggccca 660
gagcggctct tcacgtgagc agaggggacc cccgcaagga cagggcagag gggtcgcct 720
cacctggaga gtcaacgact cccgcccacg gctcgag 757

```

<210> 1574

<211> 644

<212> DNA

<213> Homo sapiens

<400> 1574

```

gaattcggcc aaagaggcct acgccccggt cacagtgaat atgtagacgg ggtcgttgtc 60
cgtacgactg tgcgccaggg ctcggggagg ggcgccctcc gctgagcgc ccccttggga 120
atattgaaca taatcacctc tcattccaga ctatgttagg tcttaattgt gggaggacgc 180
ccgattgtct ggcccgtttc accccgagga ggaaggacac tgggtcatga cgccatcaga 240
gggcgccaga gcagggaccg gacgcgagtt ggagatgttg gactcgtgt tggccttggg 300
cggcctgggt ctgcttcggg attccgtgga gtgggagggg cgcagtctct tgaaggcgt 360
tgtcaagaaa tctgcactgt gtggggagca agtgcatatc ctgggctgtg aagtgagcga 420
ggaagagttt cgtgaaggtt ttgactctga tatcaacaat cggctgggtt accatgactt 480
cttcagagac cctctcaact ggtcaaaaac tgaggaggcc ttctctgggg ggccgctggg 540
agccttgaga gccatgtgca agaggacaga tcctgttcct gtcaccattg ctctcgattc 600
actcagctgg ctgctacttc gccttccctg caccaatact cgag 644

```

<210> 1575

<211> 184

<212> DNA

<213> Homo sapiens

<400> 1575

```

gaattcggcc aaagaggcct agaggggcta agggtagagt ttaattttaa tttccttctt 60
acaatcagag tcctcgccaa ggcaactgct tagttttcgt actgcacttg ggatcttaca 120
cattcattcc acaatacat attttatggc tactatgcat tgggcactat tccagggtgc 180
agag                                              184

```

<210> 1576

<211> 276

<212> DNA

<213> Homo sapiens

<400> 1576

```

gaattcggcc aaagaggcct acgtcgattg aattccagaa gccctgttca tggttgggga 60
tattttctcg actgcatgga atcagaaaga agcaaaagga tgggaaatgc ctgcatctcc 120
ctgaaaagaa ttgcttattt cctatgtctc ttatctgcgc ttttgcgtac tgagggggaag 180
aaaccagcga agccaaaatg ccctgccgtg tgtacttgta ccaaagataa tgctttatgt 240
gagaatgcc aatccattcc acgcaccgat ctcgag                                              276

```

<210> 1577

<211> 823

<212> DNA

<213> Homo sapiens

<400> 1577

```

gaattcggcc aaagaggcct atgttatttg tctttttgat ttcgttgaca tttttatcga 60
ttgtgaaaaa gcatggtgtt attcactgtg cacttgtaat aaaaatgtcg gtttcatttt 120
aaaatgccct tgacgttgca gtaaaaaatta ttaattttat taaaatttta acccatgaat 180
acacatcttt tattctgaga tgaatgatac atatgcatag agtacttctg tggcatgccca 240
aagtaccatg cttgtttcag ggagatgtga agttcagtta caagctgaac tacttgcttg 300
tttcttgga aaccattttt atttgcagta atgactgaca gacaaactac gcccatctgc 360
actgcgttat ttgacagtgt ttttttgaaa agtgaatgag aaacatctcc catagtggagc 420
ttgatagctt cccagtatgt agacttttct catggagtct gatattagag agtgtaattt 480
tccaatactg gataatgaaa tgtgtcaaca tttggaatat ttgtatacag tgggtgaacca 540
atattttcca aatgatcaat gcatgatgtt tcaccagtat gcatgggtaa agttctttaa 600
aagtataaaa tatatcagtt gatcttaatg taacagagtt tgagaagttc attggtgaaga 660
tttcagatac cacattgtaa cctttaagaa attaccactt gtcaagtttt tgaatatgca 720
agcattttta aatattcttt ttccaactac atatttgtgt tgggtcagat gttttcaccc 780
acttctgcta aaacaacatt ttataacacg tcgcggtact gag                                              823

```

<210> 1578

<211> 721

<212> DNA

<213> Homo sapiens

<400> 1578

```

gaattcggca aagaggccta tccaccatca cgatcgtggc cgaggaggta tcaggcacaa 60
acgactatgt gcaactcacc ttcagagcct acaagctgga caacaaggat ctgttcagca 120
agtctgacct tttcatggaa atctataaga ccaacgagga ccaaagtgat cagctgggtc 180
ggagaactga ggtgggtgaag aacaacctga accccagctg ggagccgttc cgctgtctcc 240
tgcattccct atgcagctgt gatgttcacc gacctctcaa gttcctgggt tatgactatg 300
actccagtgg gaagcatgac ttcacggtcg agttcaccag cactttccag gagatgcagg 360
aagggtacggc aaacctctgg caggagatgc agtgggactg tatcaacccc aagtatcggg 420
acaagaagaa gaattacaag agctcagggg cggtagtgtc ggcccagtg acgggtggaga 480
aggtgcacac ctctctggat tacatcatgg gtggctgcca gatcagcttc acgggtggcca 540
ttgacttcac tgccctccaa ggggacctga ggagcagcca gtccctgcac tgccctcagtc 600
cccagacagc caaccactac ctgcaggccc tgcgtgcagt gggaggcatc tgccaggact 660
atgacagtga taagcgggtc ccagcttttg gctttggggc tcgaatcccc cccaactcga 720
g                                              721

```

<210> 1579

<211> 549

<212> DNA

<213> Homo sapiens

<400> 1579

```

gaattcggcc aaagaggcct accagatggt aactcagatc cacagaaaaa aataaaaagc 60
accagaaatg gcaaatatgt ggacaaatgt aaaatctctc tattttctct tcttatttat 120
ttaaataaca tagaactatt tagaaaaagt ataacacctt tgtattggac ttatatattg 180
attatatata catggcaata gctcagaagg tgggggtggg tgggggaatt tattggagtt 240
atattgctgc aagttttacca tattttacct gaaacaactt agattattac ccctaagtgg 300
actgcaatga gatttatagt gtaatccac taaaatataa tgtgagagga ttgcctgagg 360
ccaggagttt gagactagcc taggcaacat agtgagaacc tgtcgcctaca aataataata 420
ataataatca aagctctcac ctcaataacc taggaaaaaa atagcaaaat aaatccaaag 480
caagcagaag gaaggaaata ataaagataa gaacagaaat ccatgaaatt agaaaccgaa 540
aaactcgag                                     549

```

<210> 1580

<211> 646

<212> DNA

<213> Homo sapiens

<400> 1580

```

gaattcggcc aaagaggcct aatactctga aattaccctt tatctaataa tagcattaag 60
cacagtgtct tttatatctt ttttgacaat catcatcttg agcatcatca agtgctaccg 120
ctacactgct tatggcactg catgctgtgg aggcctctgt ggagtaaggg aaagggtccc 180
tgcagaactg tacaacaacg ccaacaacaa tattgatgcc aggataccgc atggcctcaa 240
agtgcagcct cacttcattg aagttcgagg gaatggctcc ctaccaaga cctactgcta 300
caaggcctgt ctgacagcag gctcagggag tgacactttc atgttttaca atacaggggc 360
ccagacagga ccagggcctt cgggagccca agcagcagtg actgacagca ggaatctcac 420
aggccaaagt ggtcagaatg ctgggaacct gattattctc aaaaatgagg ctgtttctca 480
aaatgagcca cgacagccca accctgactg gcgttactct gcctccctga gaggcaggcat 540
gcacagctct gtgcacctag aggaggtctg cattctacgg gctgggtccag gagggcctga 600
tcagcagtggt ccaacagtat ccagtgcac accagaacgc ctcgag                                     646

```

<210> 1581

<211> 516

<212> DNA

<213> Homo sapiens

<400> 1581

```

gaattcggcc aaagaggcct aagagaactc cagatttgcc tgaagaagag tatgtgaagg 60
aagaaatcca ggagaatgaa gaagcagtc aaaaagatgct tgtggaagcc acccgggagt 120
ttgaggagggt tgtggtggat gagagccctc ctgattttga aatacatata actatgtgtg 180
atgatgatcc acccacacct gaggaagact cagaaacaca gcctgatgag gaggaagaag 240
aagaagaaga aaaagtttct caaccagagg tgggagctgc cattaagatc attcggcagt 300
taatggagaa gtttaacttg gatctatcaa cagttacaca ggccttccta aaaaatagtg 360
gtgagctgga ggctacttcc gccttcttag cgtctgggtca gagagctgat ggatatccca 420
tttggtcccc acaagatgac atagatttgc aaaaagatga tgaggatacc agagaggcat 480
tgggtcaaaaa atttggtgct cagaatgttg ctcgag                                     516

```

<210> 1582

<211> 684

<212> DNA

<213> Homo sapiens

<400> 1582

```

gaattcggcc aaagaggcct actcctgcct cggcctcccg agtagctggg actacaggca 60
ccggacacca cgcccggcta attttttttg tatttttagt agaggcgggg ttaccctgtg 120
ttagccagga tagtctcaat ttctgatctc cgtgatctgc ccgccttggc ctcccaaagt 180
gctgggatta taggcgtgag ccaccacgcc cggcctctat ttttgaaagt taccttttgt 240
cattttttta tctgcagtag tgtggattag aaacctggct cagtcctacc actaaaataa 300

```

```

ttcttaaaag ttggatgaaa cattaaaaaa atcttgcttt agtgtcacia tgatcaggca 360
agaagacaat aattttatga aaattaaggt ttacacctga gacattctc tggctctgat 420
aaggatgagg ccatgtttct tgggactgta aaaagcaggg gaccagagac aaagttcaaa 480
gtccagccaa attggaagtg tagtaagaga acactcttac actattgggt ggagtgtaaa 540
ttagttcaac cattgtggaa gacagtatgg tgattcctca aggatctaga actagaaata 600
ccatttgagc cagcaatctt attactgggt atatactcaa aggattataa attattctac 660
tctaaagaca caggcactct cgag 684

```

<210> 1583

<211> 464

<212> DNA

<213> Homo sapiens

<400> 1583

```

gaattcggcc aaagaggcct agcttctacc aaatttaacg cagcttaatt agggaccagg 60
tacatatctt cttctgaaca tttttggtca agcatgtcta accataaaaag caaatggaat 120
tttaagaggt agattttttt ttccatgatg cattttgtta ataaatgtgt caagaaaata 180
aaaacaagca ctgagtgtgt tctcttgaa gataagggtc taatgaaaaa taaaagatag 240
atatttggtta tagcttgaca ttttaacagt catagtatta gacgtttcgt gaccagtgc 300
ttttggactc tctcaggatc aaaatacag tctgccaact gtattaaatc ctctccacc 360
ccctccacca ttgggtccac agcttcctgg tgggtcgttg tcatcaaatc cattgggccc 420
aaatgaacat gaagcagatg cagcttgagg ggcccgggct cgag 464

```

<210> 1584

<211> 660

<212> DNA

<213> Homo sapiens

<400> 1584

```

gaattcggcc aaagaggcct acaaagaggc ctaggaatcc tgttcttgtg caaatcctgt 60
ggttgatgct caacacacaa aacaaaaaaa ctgtttgttc ttggcataaa aatgaaatga 120
actcttgctt attttcttat aaagaatgaa gtttttagatc taaaggaatt tggatacact 180
ttatttccct tgtttttttc ccagtttggg ttctgacctg tgttgggtgg gggggttagg 240
tatgcagtga gccagagcag ttgactgtag gtgtattctg atttttagcc tctcaagagg 300
actgtcataa caggatagcc atgattccaa taacactggg aggtggatga aacattctga 360
ggatacgtgc aggttgtaga tgggcttgc tactttggag ctgggtgggt ggggtgggtt 420
cctcaggggg tagtgagaag ggaggaaaaa cgatgagatg taagtcagat taaaagatgc 480
ctgcattcagc atgagaagcc tactgctaag ggtcaatcat catacaggat gtattttcaa 540
tattaagcag atatggtaga gatttcaatc attgttggac tgattggcct tagagctctg 600
gtaaaacgct gcattcagagc agagcagaca cctgctgagg tcccagggtc agagctcgag 660

```

<210> 1585

<211> 398

<212> DNA

<213> Homo sapiens

<400> 1585

```

gaattcgcgg ccgcgtcgac acagaaagtt atagagatta tattgtgatg ctggaacttg 60
gagtgagaca cacatcattt ggcatcttgg ttgaatggta attcacagta atgctgccgt 120
tggtcgggac ttaaagacac ttgacctgtt tgggctgttg ccacttaaaa gttcatgacc 180
acaaatgtcc acagtgtctt cctctgagga aactcgaatc ctgaaatgga aattctttgt 240
ggcagataac tggcttatga cacttgaaa agttcaagtc ctcatataac acaccacact 300
gaacccctt tcctacagca atatgttcac tatgttacca atttgcaact tgtgcttcaa 360
tagtggaatc tactttcatt gttaacactg atctcgag 398

```

<210> 1586

<211> 652

<212> DNA

<213> Homo sapiens

<400> 1586

```

gaattcggcc aaagaggcct actgttaatg gcgggcagta gccgctgagg ggattgcaga 60
taaccgcttc ccgcacgggg aaagtctacc ctgcctgcca ctttctgctc gccgtcagcg 120
ccggagctcg ccagcatgtc tgtgggtaccg cccaatcgct cgcagaccgg ctggccccgg 180
gggtcactc agttcggcaa caagtacatc cagcagacga agccctcac cctggagcgc 240
accatcaacc tgtaccctct taccaattat acttttggtg caaaagagcc cctctacgag 300
aaggacagct ctgttgacgc cagatttcag cgcattgagg aagaatttga taaaattgga 360
atgaggagga ctgtagaagg ggttctgatt gtacatgagc accggctacc ccatgtgtta 420
ctgctgcagc tgggaacaac tttcttcaaa ctacctgggt gtgaacttaa ccaggagaa 480
gatgaagttg aaggactaaa acgcttaatg acagagatac tgggtcgtca ggatggagtt 540
ttgcaagact gggtcattga cgattgcatt ggtaactggt ggagaccaa ttttgaacct 600
cctcagtatc catatattcc tgcacatatt acaaagccta aggaaactcg ag 652

```

<210> 1587

<211> 745

<212> DNA

<213> Homo sapiens

<400> 1587

```

gaattcggcc aaagaggcct attcagagtg ggatatcaga tctttagtgt gaagatacat 60
ctacattaaa ccaggaatca ctagaactga catttggaac agaaaatttg gaaaatttta 120
aaactgtgaa ggttgatcat ggaattataa gaggaagggg catcagaaga agggcagcac 180
tttcttctta cagcccaggc caatgatccc ggggactgtc agttcacaaq catccagaag 240
actccaaaat gaaccgcagt tgggaattcat ccttgcattg aaggatctcg tggctcctgt 300
ccgtgatcgt aaactgaata cactgggtgca gatctccgta atccaccccg tggagcagag 360
tctgacaaga tactccagca ccgaaattgt ggagggaaca agggaccac tgtttttgac 420
tgggtgcaca ttcccatctg agtatcccat ctatgaggag accaaaataa aactaacagt 480
ctatgatgtc aaggataagt ctcatgatac cgttcgaacc agtgcctac cagaacataa 540
ggatcccccg ccagaagttg ggcgaagttt cttgggctat gccagtttta aagtgggaga 600
gctgctgaag tcaaggagc aattgctggt cctgagcctg agaacttcag atgggtggcaa 660
agtggttggc accatagaag tcagtgtcgt gaagatgggg gagattgagg atggggaagc 720
cgaccacatc accacagatc tcgag 745

```

<210> 1588

<211> 129

<212> DNA

<213> Homo sapiens

<400> 1588

```

gaattcggcc aaagaggcct aggcacacag aagtaattta tgattatgat gctagctaca 60
tatatattcc ctctctggca aaaactattt gtccacaca tgatcctaatt tgtacacgca 120
tttctcgag 129

```

<210> 1589

<211> 571

<212> DNA

<213> Homo sapiens

<400> 1589

```

gaattcggcc aaagaggcct agaccacaaact gcatcaattg ttggagaatc aaaagaactc 60
ttctgtaccc ctggcagagc atttgcagat taaagaagca tttgagaaag aagttggaat 120
cataaaagcc agcttgagag aaaaggaaga agaaagccaa aacaaaatgg aagaagtctc 180
caaacttcag tcggagggttc agaatactaa acaagcatta aaaaaattag agactagaga 240
ggtagttgac ttgtctaaat ataaagcaac aaaaagtgtat ttggagacac agatttctag 300
cttaaatgaa aaattggcca atctgaatag aaagtatgtg gaagtatgtg aggaagtgtt 360
gcatgccaaa aagaaggaaa tatctgcaaa agatgagaag gaattactgc atttcagcat 420
tgagcaagaa attaaggatc agaaggaacg atgtgataag tccttaacaa caatcacaga 480
gttacaagaa agaatacaag aatctgctaa acaaatagaa gcaaaagata ataagataac 540
tgaactgctt aatgatgtgg aaagactcga g 571

```

<210> 1590
 <211> 490
 <212> DNA
 <213> Homo sapiens

<400> 1590
 gaattcggcc aaagaggcct acctcacgcc atgccccagc tcatggctta catcccatg 60
 ccaggcagag ctggaacggg agcgggcaca gctgctggc cgggccacga tggctgaaga 120
 gcaactttct gagctacagg agtacgtgga ccagcacctg ggcaggtggg cagagggagc 180
 tgggtgtgac ccaggggcc tggctctggtt ggaatgaagg atgatggctg cctcaggcgc 240
 taaaagcaga cctgtccaca gctgggcaag tcaactaagc atggttctc tgagcaggta 300
 caagcacgaa atcctgaggc tgaggaagct ggcaggtgca ggggacccct ggaaagtggg 360
 ggctgtgcct ccagccaagc cccagcatcc aaggaccggc agccactagg ccgtctccca 420
 aggagcagag cagagcagag ctctctcagc agcacagaac cctccccacc agccccccat 480
 aaaactcgag 490

<210> 1591
 <211> 569
 <212> DNA
 <213> Homo sapiens

<400> 1591
 gaattcggcc aaagaggcct acagtttcta tgtagtgacc attttactcc tgactctctt 60
 gacatcagat ggggtattcg atatttaaaa caaactgcag ttccaacaat attttctttg 120
 cctgaagaca atcagggaaa agacccttct aaaaaaaat cccagaagaa aaacttggaa 180
 gatgagaaag aagtatgccc aaaagccaag tcagaagaat catttgtatt aaatgagaca 240
 aagaaaaata tagttaacac agatgtgccc catcaacatc cagaattact tcattcatct 300
 tcttggtaa agccaccagc tccccaaaaca ggaagtatac aaaataacat gttaactctt 360
 aatctagtta aacaacatac tgggaaacca gaatctacct tggaaacatc agttaaccaa 420
 gatacaggta gaggtggttt tcacacatgt tttgagaatc taaattctac aactattact 480
 ttgacaactt caaattcaga aagtattcat caatctttgg aaactcaaga agttcttgaa 540
 gtaactacca gtcattctgc ttgctcgag 569

<210> 1592
 <211> 575
 <212> DNA
 <213> Homo sapiens

<400> 1592
 gaattcggcc aaagaggcct aggtgtatca agtaagggtg cttcgtcctg ttcacgcga 60
 actaggggaa gcgaatgagg agtttgcact ccgtgtacaa cagctggtg ccaagggaatt 120
 gggccagaca gggacacggc tcaactccagc tgacaaagca gagcacatga agcgacaaag 180
 acaccccaga ttgcgcccc agtcagccca gtcttcttct cctccctccc ctggctcttc 240
 tcttgatgtg caactggcaa ctctggctca gagagtcaag gaagttttgc cccatgtgcc 300
 attgggtgtc atccagagag acctggccaa gactggctgt gtagacttga ctatcactaa 360
 tctgcttgag ggggccgtag ctttcatgcc tgaagacatc accaaggga ctcagtccct 420
 acccacagcc tctgcctcca agtttcccag ctctggccc gtagaccctc agccaacagc 480
 cctaactatt gccaaagtct cctgggccc gpcaggagag ctgcaggagc gcaagcaagc 540
 actatatgaa tacgcaagaa ggagattcac tcgag 575

<210> 1593
 <211> 213
 <212> DNA
 <213> Homo sapiens

<400> 1593
 gaattcggcc aaagaggcct aaaatactcc acctccttga gatcttcttt gatttgactc 60
 tgactcttca tgtcagccac cactgggtta gtccaggccc ttatcgattc ttatttggat 120
 tattgtaata atttcccaac caggttcctt ttttccatcc ttgtttctgg ctgtagtgtg 180
 cattgtctacc agaaagatac tgctatactc gag 213

<210> 1594

<211> 579

<212> DNA

<213> Homo sapiens

<400> 1594

```

gaattcggcc aaagaggcct agtcaacagc atttcttggt ccaagatcac ccttctgagt 60
acctctctgg ctgccaaatt gccagggcct tcacagtttg attccatttc tcagctccaa 120
gcattaggtg aaccacacaa gcaatcctag cctgtgatgg cgtttgacgt cagctgcttc 180
ttttgggtgg tgctgttttc tgccggctgt aaagtcacat cctcctggga tcagatgtgc 240
attgagaaag aagccaacaa aacatataac tgtgaaaatt taggtctcag tgaaatccct 300
gacactctac caaacacaac agaatttttg gaattcagct ttaatttttt gcctacaatt 360
cacaatagaa ccttcagcag actcatgaat cttacctttt tggatttaac taggtgccag 420
attaactgga tacatgaaga cacttttcaa agccatcatc aattaagcac acttgtgtta 480
actggaaatc ccttgatatt catggcagaa acatcgctta atgggcccac gtactgaag 540
catcttttct taatccaaac gggaatatcc aatctcgag 579

```

<210> 1595

<211> 111

<212> DNA

<213> Homo sapiens

<400> 1595

```

gaattcggcc aaagaggcct atatacactt tagtattatt gagtaaatag gacagtgttc 60
agtttgattt ttattctgat gtgttttaaa aaattcaggg tactactcga g 111

```

<210> 1596

<211> 722

<212> DNA

<213> Homo sapiens

<400> 1596

```

gaattcggcc aaagaggcct atttttttgt gtttttagtg gagacggggt ttcactgtgt 60
tgccaggatg ggtcttgatc tcctgacctc gtgatacacc tgccctggcc tcccaaagtg 120
gtaggattgc aggcgtgtgc caccacaccc ggcccagtaa ttctaatttt gccctttgcc 180
ttgtgatctt tgctttgacc tttgccttgt gatctttatt gccctttaaa gcatgtgac 240
tttgtgacct actccctgtt catacacccc ctcccttttt aaagtcctta ataaaaacct 300
gctggttttg tggctcaggg gacatcatgg acctaccgat atgtgaggtc acccccagag 360
gcccagctgt aaaattcctc ctttgtactc tttctcttta tttctcagac tggccgacag 420
ttagggaaaa tagaaaggac ctatgttgaa atattggggg ctgggtcccc cgataaaaat 480
gtaaaacagg acatttttac taagaaatat aaatatcttt tgtttctctg aaataagaag 540
tcaaaagtat ttaagcttca actcatagtc attaatgtct tagaattgta tcttatttag 600
agataattta gatattcaat gaatatccat cctttaattt agcatagcaa attttgaggg 660
tatagttaac aaaaagattt taaaaacctt taaaaatgtt tgtattagtc aggtatctcg 720
ag 722

```

<210> 1597

<211> 601

<212> DNA

<213> Homo sapiens

<400> 1597

```

gaattcggcc aaagaggcct agtgctactt cgtgatcatc ctcaaccaca tggctctctgc 60
ctccatgatc acgctectgc ttcccatcct catcttcctc tgggccatgt tgtccgtccc 120
caggcccgag cgccggttct ggatgatggc catcgctctat actgagggtg caattgtagt 180
caagtatttc tccaatttg ggttctttcc ctggaataag aatgtggagg tgaacaaaga 240
taaaccgtat ccccccccaa acatcatagg agtggaaaag aaggaaggtt atgttctcta 300
tgacctcatc cagctcctgg ctctgttctt tcatcgatca attttgaagt gccatggcct 360
atgggatgaa gatgacatga ctgaaagtgg catggccagg gaggaatcag atgatgagct 420
ctccctcggt catggcagga gggactcctc cgattctctc aagtcacatc acctggccgc 480

```

gtctgtggag tcagtgcattg tgaccttccc ggagcagcag acagctgtcc ggaggaagcg 540
 ctccggcagc agctccgagc catcccagag atccagcttt tcttcaaaca gatacctcga 600
 g 601

<210> 1598

<211> 492

<212> DNA

<213> Homo sapiens

<400> 1598

gaattcgcgg ccgcgtcgac ctaagaagtc cagatactaa gagcaaagat gtttcaaact 60
 gggggcctca ttgtcttcta cgggctgtta gccagacca tggcccgatt tggaggcctg 120
 ccctgtcccc tggaccagac cctgcccctg aatgtgaatc cagccctgcc cttgagtcct 180
 acaggctctg caggaagctt gacaaatgcc ctcagcaatg gcctgtctgc tgggggcctg 240
 ttgggcattc tggaaaacct tccgctcctg gacatcctga agcctggagg aggtacttct 300
 ggtggcctcc ttgggggact gcttggaaaa gtgacgtcag tgattcctgg cctgaacaac 360
 atcattgaca taaagggtcac tgacccccag ctgctggaac ttggccttgt gcagagccct 420
 gatggccacc gtctctatgt caccatccct ctcggcataa agctccaagt gaatacgccc 480
 ctggtactcg ag 492

<210> 1599

<211> 430

<212> DNA

<213> Homo sapiens

<400> 1599

gaattcggcc aaagaggcct atttttttta agaactctaa agtttcccca agagcttggg 60
 gtctttttga cttacacttt tgtaattaat gtatagtttt attacagtgt gatcacagaa 120
 tatggccaat ttcttttggg aagaaattac ttacaatttt tttttggtag cctaataataa 180
 aatcaagttt tgcaaacctt tcttataatt ttttcttaat gggctagaca gaagatcctt 240
 ctctttaatt attcatttat tcatcgagga ttgtttccac catgtgtctc atacatgcca 300
 ggcattgcat taggcattgc aggatataaa ataagtcata agctttgtct tagattggta 360
 aagtttggat ggaacacaga cacatgtaga cctaattata atacagaaag aaatgcaacc 420
 gcggctcgag 430

<210> 1600

<211> 401

<212> DNA

<213> Homo sapiens

<400> 1600

gaattcggcc aaagaggcct aggtataact caaacttttt gtggacattc ttttcaaat 60
 tttttaagaa cctctgacta taaaagggtg agtaaaaaa ggaagcgtg ctataagttc 120
 aaatctgttg tattacccta aattagataa accaacctga attatagtag atttctcaat 180
 agatgaggaa ctgaaaaata ctatgtaaaa tatcttccaa aatgcttttt atactttttt 240
 tatttgtaatt ttggtctatc taaaatgttc gttagcttaa cttaatgggc gttattggat 300
 tcatatgact aacgtttcct cagtattgta atgcttgaaa tatttgaaaag aaaaaatgtt 360
 gttttttagt tgaaactggg atatataact ctgtgctcga g 401

<210> 1601

<211> 524

<212> DNA

<213> Homo sapiens

<400> 1601

gaattcggcc aaagaggcct atatgaatac tgcctcagcg tccatctgct tgtcctgttc 60
 ccagcttgct atgcttgact aacatatttt gaggcagtct tcacgcagct cctgttttca 120
 tgttctgggt agataagacc ccataccctg agctgcttga ccacattact tctgctttaa 180
 gcctcgggaa cctgataagg taacccccga gtccctgtgc tgagtctcgt gcttccctca 240
 aatgaactaa tccaaccgtg ctgtgggaaa cccacctagg taaccccata aaggatccaa 300

```

cccacaggcc cctccgtttc tcgttcccca cctgctgggc gaaggagcag gtcctggatg 360
gtcctctccc tcttctcttt ggtcttgcca ggggtgctgt cctcttccct ccagacctgt 420
gagtagtaaa ctgattcat tttgcagtct gagtgtccct cactgtgctg cacctgactg 480
caccaagccc taaaccgtcg attgaattct agacctgcct cgag 524

```

<210> 1602
 <211> 496
 <212> DNA
 <213> Homo sapiens

```

<400> 1602
gaattcggcc aaagaggcct aggtcagcat gctgctcttc tgtcacgctc tcgctatagc 60
tgtgtgccag atcggttatct tctcagaaag ctgggcatctt gccaaagaaca tcaacttcta 120
taatgtgagg cctcctctcg accctacacc atttccaaat agcttcaagt gctttacttg 180
tgaaaacgca ggggataatt ataactgcaa tcgatgggca gaagacaaat ggtgtccaca 240
aaatacacag tactgtttga cagttcatca cttcaccagc cacggaagaa gcacatccat 300
caccaaaaaa tgtgcctcca gaagtgaatg tcattttgtc ggttgccacc acagccgaga 360
ttctgaacat acggagtgtg ggtcttgctg tgaaggaaat atctgcaatg tagaattacc 420
caccaatcac actaatgcag tgtttgccgt aatgcacgct cagagaacat ctggcagcag 480
tgccctccca ctcgag 496

```

<210> 1603
 <211> 350
 <212> DNA
 <213> Gallus sp.

```

<400> 1603
gaattcggcc aaagaggcct acatcttctt aatatcagaa acaattctga ctgagggtttt 60
gactgatctt cattttcatg acagtgggat tttttctccc aacaatgaaa aggaagaacc 120
ttttcctaag cctattgctc tgctacagtt tgctcagagc tgccagtctt cacctcataa 180
tcgaggagaa gacagaatgc aacctttcaa agagcaacaa aatgaacctc ccagatcttc 240
caccatctc cattgtagat ttaactaaaa gatcccagaa agtcagcaga aaagaggcag 300
agaataagaa atcttccaag aaaaatgctg aactgaaggc acgtctcgag 350

```

<210> 1604
 <211> 276
 <212> DNA
 <213> Gallus sp.

```

<400> 1604
gaattcggcc aaagaggcct aaaaacattg ctccaaaaaa ttactgaagc atctaaagga 60
tttcagatgg aaaaaataga agacgggtat gaaaatatga accaattcac agtgaacctc 120
agtagagaag aaaagataat acgagaaatt gattttgaca gagaggagga ggcagaagag 180
gaagaggagg agacagtaga aggggaagat ctggatgaag ttcacacgga gtcacggga 240
gaggaggggg aggaagaaga gaaggagggc ctcgag 276

```

<210> 1605
 <211> 272
 <212> DNA
 <213> Gallus sp.

```

<400> 1605
gaattcggcc aaagaggcct acgtcgattg aattctagac ctgcctctat tttctcttcc 60
tgtgttttat ggtcttccaa gtgttcagaa acatcagtg aaagcagtc agcctgccag 120
cgatgagcaa ggcccgcgc ctgcattacg aggggctgat ctttcgggtc aagttcctga 180
tgctcatcac cctggcttgt gcagccatga cagtcatttt cttcatcgtg agccagggtg 240
cagaaggcca ctggaagtgg gggcgtctcg ag 272

```

<210> 1606
 <211> 249

<212> DNA

<213> Gallus sp.

<400> 1606

```

gaattcggcc aaagaggcct aatctagatc tgctctcaga tgctccctcc ctccctgttc 60
tggatggccc ttatcctatt tccacctgag gtcaatggca ctccctaaa taagtgtccc 120
aaagaaacaa caaaatgcaa caccaccctt gacaaaaagc cacacgatgc tacttttttt 180
gctcgtcgtg tgcagcactg cagcccatgc agaaatgccg gattccctcc ttccaacccc 240
ccactcgag                                     249

```

<210> 1607

<211> 107

<212> DNA

<213> Mus musculus

<400> 1607

```

gaattcggcc aaagaggcct acaaaaatac tagcaacctt gaagtgggtg gaatcaattt 60
ttttaatttt cctactaaat tttactgaat ccagaacaca actcgag          107

```

<210> 1608

<211> 416

<212> DNA

<213> Mus musculus

<400> 1608

```

gaattcggcc aaagaggcct acactttctt ctgctgatag tagacctgct gaagaccttt 60
ggaccagccg ctgagccacc atgatctcta ggctcctttc cttctctctc ctccggctgt 120
gtgttgggca aacagacatt cctgaaaatg ggtctctctc caagcccagc ctccagtgctt 180
ggcccagcac agtgcttccc accaagagcc acgtgacaat gcaatgtaag agcccccccc 240
cgagtaaata cttcatcctc aaaaaggaag gtttcgcttt gaattctgtg aagccatata 300
atttgacaga ggagacggct gattttcatt tcaccgacct acgacagaat gatggcggac 360
actacacctg tgaatactat agcaaatggc cccatgacac accgtcacac cccagc      416

```

<210> 1609

<211> 121

<212> DNA

<213> Mus musculus

<400> 1609

```

gaattcggcc aaagaggcct aggtttcttg gagcttcac aaacttaaaa ccatgaaaca 60
tctattattg ctactattgt gtgtttttct agttaagtcc caaggtgtca acgttctcga 120
g                                     121

```

<210> 1610

<211> 205

<212> DNA

<213> Mus musculus

<400> 1610

```

gaattcggcc aaagaggcct actgggacag tgaatcgaca atgccgtctt ctgtctcgtg 60
gggcatcctc ctgctggcag gcctgtgctg cctgggccct gtctccctgg ctgaggatcc 120
ccaggagatg gctgcccaga agacagatac atcccacatc gatcaggatc acccaacctt 180
caacaagatc accccaacc tcgag                                     205

```

<210> 1611

<211> 219

<212> DNA

<213> Mus musculus

<400> 1611

```

gaattcggcc aaagaggcct atgcactaac ttcaggaacc agctcatgat ctcaggatgt 60
atggaaaaat aatcctttgta ttactattgt cagcaattgt gagcatatca gcattaagta 120
ccactgaggt ggcaatgcac acttcaacct ctttcttcag tcacaaagag ttacatctca 180
tcacagacaa atgatacgca caaacgggac acactcgag 219

```

<210> 1612
 <211> 656
 <212> DNA
 <213> Mus musculus

```

<400> 1612
gaattcggcc aaagaggcct actctctgtc tctcgattac aatcatgatt tccagaatgg 60
agaagatgac gatgatgatg aagatattga ttatgtttgc tcttgggaatg aactactggt 120
cttgctcagg tttcccagtg tacgactacg atccatcctc cttaagggat gccctcagtg 180
cctctgtggt aaaagtgaat tcccagtcac tgagtccgta tctgtttcgg gcattcagaa 240
gttcattaaa aagagttgag gtcctagatg agaacaactt ggatcatgaat ttagagtcca 300
gcatccggga gacaacatgc aggaaggatt ctggagaaga tcccgcctaca tgtgccttcc 360
agagggacta ctatgtgtcc acagctgttt gcagaagcac cgtgaaggta tctgcccagc 420
aggtgcaggg cgtgcatgct cgctgcagct ggtcctcctc cacgtctgag tcttacagca 480
gcgaagagat gatTTTTTggg gacatgttgg gatctcataa atggagaaac aattatctat 540
ttggtctcat ttcagacgag tccataagtg aacaatttta tgatcgggtca cttgggatca 600
tgagaagggt attgcctcct ggaaacagaa ggtaccctaaa ccagccggca ctcgag 656

```

<210> 1613
 <211> 166
 <212> DNA
 <213> Mus musculus

```

<400> 1613
gcagtctcag aagttcccca acattgtgct tctatatattc ctctctcagt tgagtctcac 60
catgcatcta gtcactcaaa ttagaaatgg tgtgcttatt tttggatccc tttctctttc 120
catatccagt ctaatgccta tctatgctta ttctgaatcc ctcgag 166

```

<210> 1614
 <211> 805
 <212> DNA
 <213> Mus musculus

<220>
 <221> unsure
 <222> (337)

```

<400> 1614
gaattcggcc aaagaggcct acttttcaga acctttttta aagggttgggt taactacctc 60
agtagcagag gattgaaacta taccctgtct gtactgtaca tagaaaaatc ttgtagataa 120
aagcaaggct tgtaaataat gatatgaggg taagatttta atataccaaa tgtaacattc 180
ttagttgcct ttagtttcag aggcttgtaa gacttcctca tgaccatcat aacaggcctt 240
gcttttgtcg tattttgtgg ctgaaaaagc agccttgctt cttcagatat tgtagtattt 300
tggtatgata atagtttagc aagatgttac tttgtgnaga catcagatgt tcaaaaaaaa 360
agtgcattcc aacttgtagt aaatactgca gtgtcccttt ataaaaagtc agactaaaaa 420
tgacaattgt acagcaaaagc ctgacatttg gatattttga agttttttca taaatcatag 480
aaattagtat atggctgtag tttagctttt taggtaaaag gtatgtttca ttagtgcatt 540
tgttattgct gatcactata aaaatgtgaa tcagctttcc atttcttatg cagggtcatga 600
taactttagt aatagagtac aatcatttgt gctatgtttt caattttcta aagcaccttg 660
atgacagtga gtgttcagtg gtgaagcatc ctctattgaa tcaccttcaa aaaatttttt 720
tgccaagtcc taagttgata gcttaaagtc aaaagtaaaa ttatagttta agtaggactt 780
ggtgtaaaga aacaccccc ctcgag 805

```

<210> 1615
 <211> 111

<212> DNA

<213> Mus musculus

<400> 1615

```

gaattcggcc aaagaggcct agttttttca agggggaaca tggcaaaggt gttcagtttc 60
atccttggtta ccaccgctct gataatgggc agggaaattt cggcgctcga g          111

```

<210> 1616

<211> 549

<212> DNA

<213> Mus musculus

<220>

<221> unsure

<222> (26)

<220>

<221> unsure

<222> (130)

<400> 1616

```

gaattcggcc aaagaggcct agtttncggt atctgctgtt cacagctctc cactgtaatc 60
cgaatacttt gccagtgcac taatctcttt ggagataaaa ttcattagtg tgttactaaa 120
tggttaatttn cttttgcgga aaatacagta ccgtgtctga attaattatt aatattttaa 180
atacttcatt ccttaactct ccctcatttg ctttgccac agcctattca gttcctttgt 240
ttggcaggat tctgcaaaat gtgtctcacc cactactgag attgttcagc ccctgatgta 300
tttgattga tttgtttctg gtggtagctt gtctgaaat gtgtgtagaa agcaagtatt 360
ttatgataaa aatgttggtg agtgcattgt ctgtgtggaa ttcagaggaa aacccagatt 420
cagtgattaa caatgccaaa aaatgcaagt aactagccat tggtcaaatg acagtgggtgc 480
tatttctctt ttgtggcctt ttagactttt gttgccctaa aattccattt tattgggaac 540
cgctctgag                                     549

```

<210> 1617

<211> 441

<212> DNA

<213> Mus musculus

<400> 1617

```

gaattcggcc aaagaggcct agcaggagcg gaggggaacag gagcggaggg aacaggaacg 60
gaaggagcag gagcggcggg agcaggagca ggagcgtctt cgggccaaaga gggagatgca 120
ggagagagag aaagccctgc gactccaaaa ggaacgactt cagaaggaaac tggaggagaa 180
gaagaggaag gaagagcaac agcgcttggc tgagcagcaa ctgcaggagg agcaggcaaa 240
gaaagctaag gaggtggcag cagccaggaa agtcctgaac atgactgtgg atgtgcagtc 300
tcctgtttgt acctcatatc aaatgactcc acaaggacct aaatccatcc ccaagatcag 360
cgtagacgat tatgggatgg acctaaatag tgatgactcc acagatgatg agtcccaccc 420
ccggaaaccc atcccctcga g                                     441

```

<210> 1618

<211> 110

<212> DNA

<213> Mus musculus

<400> 1618

```

gaattcgcgg ccgcgtcgac cagcttttgg taccatgagg tcacttcaga tgctgctcct 60
ggctgctctg cttctgggga cttttctgca gcatgccaga gctgctcgag          110

```

<210> 1619

<211> 503

<212> DNA

<213> Mus musculus

<220>
 <221> unsure
 <222> (66)

<220>
 <221> unsure
 <222> (106)

<400> 1619
 gaattcgcgg ccgcgctcgac ggaccccgca cccccctccc ccacatccac atcacccgct 60
 gtgcancag gagaggaggc tcagggtgac gacctctccc cagacngcct gtccgagcag 120
 ggcaaacagc agcccccgag cagcgcctgc gcagcctgtg ggcagcgggt gcacctggtg 180
 cagcgggtact tggcggaggc cagactctac caccggcact gcttccgatg tcggcagtg 240
 tccagcacgc tgggtcccagg ctcttacagt agtgggcccg aagaaggcac ctttgtgtgt 300
 gcagaacgct gcaccaggct ggggtccggga agtcgggtcag gaactaggct cctttcacag 360
 caaaggcagc agccagcggc ggcagaagct aaagatgcag aggataatga cccaagcctg 420
 agtgtggctg cagtggctga ggcagacagg ctccaggcca gctccgaggt acagttccac 480
 accccaacca agcacacctc gag 503

<210> 1620
 <211> 329
 <212> DNA
 <213> Mus musculus

<400> 1620
 gaattcgcgg ccgcgctcgac actcaattaa ccatgggcca tgggtactcg ccaatgtgcc 60
 tctctgccgt ttcattcaag ggaataagat gctggctgga caaactgtta ctttgggctc 120
 ttacaatttc taccacactt cagaatgctg cagtggattg tacgaggggt gaaaataacg 180
 aattaccttc tccaaatctg aactcaagta tgaacgtggt caggatgggc caaatgtat 240
 ctctgtcttg ttccaaccaag aacacatcag tagacatcac ctattcgctc ttctggggta 300
 caaaatatct agaaagcaag aaactcgag 329

<210> 1621
 <211> 267
 <212> DNA
 <213> Mus musculus

<400> 1621
 gaattcgcgg ccgcgctcgac ccgagccaga gccaacatga agacagccac agtcttgttt 60
 ctggtggctt tgatcactgt ggggatgaac actacctatg tagtgtcttg ccccaaagaa 120
 ttgaaaaaac ctggagcttg tccaagcct tcaccagaaa gtgttggaat ttgtgtgat 180
 caatgctcag gagatggatc ctgccctggc aacatgaagt gctgtagcaa tagctgtggt 240
 catgtctgca aaactcctgt cctcgag 263

<210> 1622
 <211> 263
 <212> DNA
 <213> Mus musculus

<400> 1622
 gaattcgcgg ccgcgctcgac aacatgttgg gaacactgtt tggctctgcc ataggaggag 60
 ctctggctgt ggcaggggca cctgtggccc tggctgccat gggcttcact gggacaggca 120
 ttgcagctgc ctccatagca gccaaagatga tgtctgctgc agcaattgcc aatggagggt 180
 gagttgcagc aggaagcctg gtagccacac tccaatcagc aggggtcctt ggactctcca 240
 catcaacaaa tgcacacctc gag 263

<210> 1623
 <211> 185
 <212> DNA
 <213> Mus musculus

<400> 1623

```

gaattcgcgg ccgcgtcgac cgattgaatt ctaaacctgc cttggttacc ttctctttcc 60
cctttaagag gaattagcta tagaaccgct ttgtaaagat gcttcttgat attttacttt 120
tgttctcttc cccaaccatt cccacttccc cttctctcca cagccccgat cccactccac 180
tcgag                                           185

```

<210> 1624

<211> 695

<212> DNA

<213> Mus musculus

<400> 1624

```

gaattcggcc aaagagccta ggcacaaatga agtgggtaac ctttatttcc cttctttttc 60
tcttttagctc ggcttattcc aggggtgtgt ttcgctcgaga tgcacacaag agtgagggtg 120
ctcatcggtt taaagatttg ggagaagaaa atttcaaagc cttggtgttg attgcctttg 180
ctcagtatct tcagcagtggt ccatttgaag atcatgtaaa attagtgaat gaagtaactg 240
aatttgcaaa aacatgtgtt gctgatgagt cagctgaaaa ttgtgacaaa tcaacttcata 300
cccttttttg agacaaatta tgcacagttg caactcttcg tgaaacctat ggtgaaatgg 360
ctgactgctg tgcaaaacaa gaacctgaga gaaatgaatg cttcttgcaa cacaaagatg 420
acaacccaaa cctcccccca ttggtgagac cagagggtga tgtgatgtgc actgcttttc 480
atgacaatga agagacattt ttgaaaaaat acttatatga aattgccaga agacatcctt 540
acttttatgc cccggaactc cttttctttg ctaaaaggta taaagctgct ttacagaat 600
gttgccaagc tgtgtataaa gctgctgccc tgttgccaaa gctcgatgaa cttcgggatg 660
aagggaaggc ttcgtctgcc aaacagcgac tcgag                                           695

```

<210> 1625

<211> 692

<212> DNA

<213> Mus musculus

<400> 1625

```

gaattcggcc aaagaggcct acgaagcact tggtcagacc caggaaactc ttctctagtc 60
gcatccagct cgggtaccgag caccagagta atatggtctg caagggtgctc atcgccctct 120
gcatcttcac cgcaggactg aggggtacagg gttcaccaac agtcccattg cctgtctctc 180
tcatgacaaa aagttcagca cctgtggcca cctggactac ctctgctcca cactactgta 240
gggccaccac ccctgtagcc agtgccactc acaacgcctc agttctccgc accactgccc 300
catccctgac atctcagctc cccactgacc acagagaaga agctgtcacc agcccacctt 360
tgaagaggga tgtaaacagc acagactcct cacctgcccg gttccctca acaagcagtg 420
atggccactt ggcaccaca cctgagggaac acagtcttgg aagtcctgaa gcaactgtgc 480
cagctactgg gtcacagtca cccatgctcc tgtcttctca ggctccaacc tcagcaacca 540
catccccgc aacttcccta tcggagtctc tctctgcctc cgttacctct agccacaact 600
ctacggtggc caacatccag cccacagaag ctccaatggc acctgcgtca ccaacagaag 660
agcacagctc tagtcacaca cccagactcg ag                                           692

```

<210> 1626

<211> 130

<212> DNA

<213> Mus musculus

<400> 1626

```

gaattcggcc aaagaggcct agggctggat gttcaacaag atttgtgatt ccaaaataat 60
cttctctctt gggattttcc tctgtaaggt caaagccgtt gggatgatg tacgagtccc 120
cccactcgag                                           130

```

<210> 1627

<211> 495

<212> DNA

<213> Mus musculus

<400> 1627

```

gaattcgcgg ccgcgtcgac ccctatgctg cctaggctga ccttgaactc ctgggctcaa 60
gcagtctacc caccctcagcc tcctgtgtag ctgggattat agattggagc caccatgccc 120
agctcagagg gttgttctcc tagactgacc ctgatcagtc taagatgggt ggggacgtcc 180
tgccacctgg ggcagtcacc tgcccagatc ccagaaggac ctccctgagc atgactcaag 240
tgtctcagtc caccctgagc gccatccagg gatgccatct gtgggcacgc tgtgggcagg 300
tgggagcttg attctcagca cttgggggat ctgttggtga cgtggagagg gatgaggtgc 360
tgggagggat agaggggggc tgccctggccc ccagctgtgg gtacagagag gtcaagccca 420
ggaggactgc cccgtgcaga ctggagggga cgctggtaga gatggaggag gaggcaattg 480
gaatgcgcgc tcgag

```

<210> 1628

<211> 602

<212> DNA

<213> Mus musculus

<400> 1628

```

gaattcgcgg ccgcgtcgac gggaaacctag ctgatgatag ggggttccat ctccctaactt 60
gtccattttg ttgcatattc taaggaccca gacataggct tgggtggccc tctcttggtt 120
ttcttggttt atgactttcg gctttgtgga atacggctga gatgaaagga ttatttgacg 180
atgcgaacta ctccgttggc ctgttggatg aaggaacaaa ccttggaaat gttattgata 240
actatgttta tgaacatacc ctgacaggaa aaaatgcatt ttttggggg gatcttggga 300
agatcgtgaa gaagcacagt cagtggcaga ccgtgggtggc tcagataaag ccgttttaca 360
cgggtgaagt caactccact ccagccgtgc ttgagatctt ggcagctctt ggaactgggt 420
ttgcttggtc cagcaaaaat gaaatggctt tagtgcaaga attgggtgta tctccagaaa 480
acatcatttt cacaagtcct tgtaagcaag tgtctcagat aaagtatgca gcaaaagtgt 540
gagtaaatat tatgacatgt gacaatgaga ttgaattaaa gaaaattgca aggaatctcg 600
ag

```

<210> 1629

<211> 167

<212> DNA

<213> Mus musculus

<400> 1629

```

gaattcggcc aaagaggcct agtggttagta atctgattga ctgaatgcat ggacattatc 60
atctgttgct agccctgagc ttagtgttga caatatattt ggtattgaca aagagtatgt 120
ttgctttagg cccaaaagat aagaaaatag gcatagtgga gctcgag

```

<210> 1630

<211> 639

<212> DNA

<213> Mus musculus

<220>

<221> unsure

<222> (61)

<220>

<221> unsure

<222> (622)

<400> 1630

```

gaattcgcgg ccgcgtcgac tcctgtggca aataccggga ttaaaaggct gtgaaaatac 60
ntgagataat catgaaggca actctcatct tcttcttctt ggcacaagtc tcttgggctg 120
gaccatttga acagagaggc ttatttgact tcattgctaga agatgaggct tctggcataa 180
tcccttatga ccttgacaat cccctgatat ctatgtgccc cgtttgctgc cagcctgaga 240
ccaccgtttc cctacgtccc accagggcta tggcctcatg cgacgagata aaagagcatc 300
cccgtctcct gtctatgtgt ggccatgttg gttttgaaag cttacctgat cagctggctg 360
atagatccat tgagcaaggc ttctgtttca atattctctg tgtgggggag actggaattg 420
gaaaatcaac actgattaac acattgttta atactaattt tgaagaactc gaatcctcac 480

```

atTTTTgtcc atgtgttaga cttagagctc agacatatga actccaggaa agcaatgttc 540
 gcttgaaact gaccattgta aatacagtgg gctttggtaga ccaaatcaat aaagaagaca 600
 gctatcaacc aatagttgat tnacatagat gatctcgag 639

<210> 1631

<211> 390

<212> DNA

<213> Mus musculus

<400> 1631

gaattcggcc aaagaggcct agctaaaggg gagatctgga tggcatctac ttcgtatgac 60
 tattgcagag tgcccatgga agacggggat aagcgtgta agcttctgct ggggatagga 120
 attctgggtc tcctgatcat cgtgattctg ggggtgccct tgattatctt caccatcaag 180
 gccaacagcg aggcctgccg ggacggcctt cgggcagtga tggagtgtcg caatgtcacc 240
 catctctcgc aacaagagct gaccgaggcc cagaagggtt ttcaggatgt ggaggcccag 300
 gccgccacct gcaaccacac tgtgatggcc ctaatggctt ccctggatgc agagaaggcc 360
 caaggacaaa agaaaatgga gggactcgag 390

<210> 1632

<211> 676

<212> DNA

<213> Mus musculus

<400> 1632

gaattcgcgg ccgcgtcgac ccccaaccat gcttctccta gatgccaga cccagattca 60
 tcacagtgtc ctgctgttga tcctgctgct gggacttaaa ggagccgctg ggaaagagtt 120
 gaaggtgatc cagcctgaga aatcagtttc tgttcgtgct ggagggtcgg ctactctgaa 180
 ctgcacagtt acatccctcc tccctgtggg gcccatcagg tggtagcgag gtgtaggaca 240
 caggagaaac ttgatataatt cttacacagg agaacacttc cccagaataa caaatgtttc 300
 agatactaca aacagaagaa acctggactt ttctatctgc atcagttatg tcacttttgc 360
 tgatgctggt acctactatt gtgtgaagtt ccagaaagga ccatcagagc ctgacattga 420
 gattcagttc ggaggcggca ctgagttgtt tgcctctgga gccgctggaa aagagttgaa 480
 ggtgatccag cctgagaaat cagtttctgt tcgtgctgga gggttggcta ctctgaactg 540
 cacagtgcac tccctcatcc ctgtggggcc catgaggtgg taccgaggtg taggacacag 600
 gagaaacttg atatattctt acacaggaga acacttcccc agaataacaa atgtttcaga 660
 tgctacaaag ctcgag 676

<210> 1633

<211> 203

<212> DNA

<213> Mus musculus

<400> 1633

gaattcggcc aaagaggcct agattctgcc ctaggatgct gacttttcaac aagatgaaga 60
 ctacaacttg ttcccttctc atctgcatct cccttctcca gctgatggtc ccagtgaata 120
 ctgaggggac cttagaatct attgtggaga aaaagggtcaa ggaacttctt gccaatcgag 180
 atgactgtcc ctccacactc gag 203

<210> 1634

<211> 213

<212> DNA

<213> Mus musculus

<400> 1634

gaattcggcc aaagaggcct atggatcatg acacttcttt ttcttggcac taccggcagt 60
 cctgttcaga atgagcaagg ctttgtggag ttcaaaattt ctgggcctct gcagtacatg 120
 tgggtgtacc atgtggtggg cctgatttgg atcagtgaat ttattctagc atgtcagcag 180
 atgacagtgg caggagctgt ggtaactctc gag 213

<210> 1635

<211> 226

<212> DNA

<213> Mus musculus

<400> 1635

```
gaattcgcgg ccgcgtcgac cgagtacagg tgagtaatat taggtgtgta atttagctaa 60
ctagttaaca ggtttgaatc tgatcctggg aaccttagct tctgacctt gtctctgcca 120
acacagtagg aattcagggt ctcacaactt ctttgcattt gcttttagtta ctgctgctta 180
ggtagagcaa gacagcgctg caatgaaggg acaattattt ctcgag 226
```

<210> 1636

<211> 270

<212> DNA

<213> Mus musculus

<400> 1636

```
gaattcgcgg ccgcgtcgac gattgaattc tagaccccc cccttccaag ctgctgtgtt 60
gacgagactg cctgtctgcc ttccaggtgc tgctactgaa ctagatttcc ctgttggtac 120
agagggttatt agtatttatt ttaattttgc tataatgttg ttatgcttta ctgtgtattc 180
tttttgtgtt ttaacttaac agcctgcact aatgtgaata ccaccaact gtgggggtca 240
catctggaac cttgtaacct tgtgctcgag 270
```

<210> 1637

<211> 213

<212> DNA

<213> Mus musculus

<400> 1637

```
gaattcgcgg ccgcgtcgac actctttgac atgttcccaa accagttccg gtttgtgggg 60
aatgcccaga acaccctggc ccagcccacc gtgtgggtca ccatcgcgct caccacggct 120
gtctgcatca tgctgtgtgt tgccttccgc ttccctcaggc ttagcctgaa gccggatctc 180
tccgacacgg tccgctacac ccagcacctc gag 213
```

<210> 1638

<211> 277

<212> DNA

<213> Mus musculus

<400> 1638

```
gaattcgcgg ccgcgtcgac acagaatgtt agcatcatca gtctggaagg tgaaaagaga 60
gatgggttgg aactgttttc ttttcttttg ctgctcccca tttcttctt gcctccctcc 120
tgctgcgcag ctgcctctaa ggcagccccc caccctcgca gtaccttgca acaggctctg 180
gagattgagc tgcgcctcgc gaagcagttc ctctacactc gggggcctgc ccgaggagag 240
gaacacgttc actggctgtc gccatgacga cctcgag 277
```

<210> 1639

<211> 371

<212> DNA

<213> Mus musculus

<400> 1639

```
gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt ctagacctgc ctcgagctca 60
cccttcatca ctgcccagggt ccccgctctg gaaccacagc tgccaggcag tgtctttgac 120
cctattggcc acttcacca gcccatcttg cacctgccc agccggagct gcctcctcac 180
ctgccccagc cacctgagca cagcactcca ccccatctca accagcatgg ctgtggtctc 240
tcctccagct ttgcaaaatg agctgcccc acagccatct cggcccagta accgagctgc 300
tgctctgccc ccaaagccta cccgaccccc agctgtgttc cgtgccctgg cccagccccc 360
cctatctcga g 371
```

<210> 1640

<211> 194
 <212> DNA
 <213> Homo sapiens

<400> 1640
 gaattcgcgg cgcgctcgac ggcattgaaaa aaagtgcacat ctccacagta agccctgcta 60
 cagagtctat gcgctactgc aaagccctac tgctaacaat ccaccctttc atccttgctt 120
 ccatccgtcc ccatccaccc ttccaatcca tccatccact cattcatcca tccacccttc 180
 catccatcct cgag 194

<210> 1641
 <211> 539
 <212> DNA
 <213> Homo sapiens

<400> 1641
 gaattcggcc aaagaggcct agtttctgta ctttttattg ggtaaaaaatg gaattgaaca 60
 gcaacctcaa cataagattt tttttctagt accctccac tgattaaaga agcaagtttg 120
 aggtttcatc cttcaaaagg gggttccgag agagcaccgt agggcttttc tcaaatagaa 180
 aagccagatt ttgaaaaaat tttaaagata aaataggaca tattttgcag atatatatat 240
 atatatacac aaacacatct ccagggtatag agaaccatcc agatgttcac tttgaaaat 300
 attcaatgat gcaaaagtttt attcttgaac ttggacactg atgccatcaa acaattaaca 360
 aatatattta agtactaaag gtgatttttt ttttaaagac tttttcaaat tgtcaaatga 420
 tttaatgcag atgaacatat ttctatttta agtaacggga atctgtaaga atgtttgctt 480
 gagatatggt taactttttt cttttgttggt ttttgactta gatggacacc atactcgag 539

<210> 1642
 <211> 193
 <212> DNA
 <213> Homo sapiens

<400> 1642
 cctaaaccgt cgattgaatt ctagacctgc ctgcagcata tatacccctt tttctcagtc 60
 ttaagcatca aacaattttt gcctctttct ttttaattct ccagaggga tgggttaatgc 120
 atcacaattt aacttgtcta ttcagggtatt aatagtcaag ggatgcacat gtttgcttat 180
 agtaccactc gag 193

<210> 1643
 <211> 192
 <212> DNA
 <213> Homo sapiens

<400> 1643
 gaattcgcgg cgcgctcgac ggatctactg ccttcacacg cgctcctttt aacttaaaac 60
 actgctttca ccttaaaaaga gaaacaagag gaacacacgg acgccagaaa gagaatgacg 120
 gaaacggagg tgctatctcc agcagggtcc gaatcctcag atggaaccac aggccaccag 180
 gccaaactcg ag 192

<210> 1644
 <211> 958
 <212> DNA
 <213> Homo sapiens

<400> 1644
 gaattcggcc aaagaggcct actgctcttc ataactgagt tgagtagttt ttcttgaatg 60
 attacttttc aatttggtat acacctgtgc ccactttcct gagttctgat atagtggttt 120
 gacatgtttg tctagttttt tcatagaatt ttggagagac gctctgttga gctcactcta 180
 ctattccagc agtccccctt ttaccttttt actttatacc tttcttttag gttctcatat 240
 ttttaagaga aatgggtctta ttcataattat gtttttcttc acattattat gcttttactc 300
 ttaattttata ggtgctcaga aacacttttt atgcagtggt taaatgtttt tagaagcttc 360

```

ttaatcaaat atttccaggg cccttgaaca tagtagttgt tgagatattc attaaatgct 420
catttagtag agtttttaag gtttatctaa tatctgcttt ggggtcaagta ctataaccat 480
agtgtgactt tagagcatgg actttgaagt tgaacgtgtg taagaatcct ctctctgtta 540
atggacatgt gaccttgaac aagttaacta attcttctct tttgaatgtc ttcggccata 600
aaataaaact tcagaggagt aaatgtgact taaggcataa tatttgccct acattaagta 660
ttcagtaagt gataacttgt gagaatgtgt gagaagaatg tataataata gtttctactt 720
aattattaag gtaagtgaca gtattttctt tctttttctt ttaagagacg gggctcttgc 780
atgttgccca ggcttgtctt gaactcttgg cctcaagcag tgctcctgag tagctgggat 840
tacaaacatg agccactgca cctggctcat tttaaagatg gtaaaactca gattagagaa 900
ggaaagtaat ttggcatgat cgtactgtta atgagtcca gaaagaggag tactcgag 958

```

<210> 1645

<211> 231

<212> DNA

<213> Homo sapiens

<400> 1645

```

gaattcgagg ccgcgtcgac catagctaga acctggcagt gccagaattc aagccgaagc 60
taatgggctt tgaaggcaga gtcatctgc cagccttgtt gcttcttttt ctccctctg 120
ctgagaagca aggaacagag cagtgactgt atccctggc tacacattag aattacctgc 180
aattcttttt ttttttgaga cggagtctcg ctctgtaacc cctcactcga g 231

```

<210> 1646

<211> 450

<212> DNA

<213> Homo sapiens

<400> 1646

```

gaattcgccc aaagaggcct agcctgtga cgactttttt aaacttttat ttttaaatat 60
tttttagaat atcactaaaa tactgttgca atcattttta gtccaagtt ttaaaaccga 120
aaatcctata ttctctgaca gtaaattctg gtttctagaa agtagctcaa aaacaaatgc 180
gtcatcctct actttggaag gtccaaaatg ataacagatt caaatctacc aagacccttc 240
atcccaacca aatgtctcta aataccaaga tctcagatta ccctggaatt tttttttttt 300
tttttttttt tttttttttt tttttttttt ggcttcaa atcaagttaat aaataaaaca 360
gcaaaggggg gtccaaggca gtatcactt cacagtgtgg tccttggtgg ggtgagggat 420
ggtcgagtc aactcggaaa ggggctcgag 450

```

<210> 1647

<211> 120

<212> DNA

<213> Homo sapiens

<400> 1647

```

gaattcgagg ccgcgtcgac ctggatttgt actctgtaga taccgcaaac attccttctt 60
tatttgtagt tctgtcttat gaaggcattt gagtttgtga cctctgctgt gctactcgag 120

```

<210> 1648

<211> 388

<212> DNA

<213> Homo sapiens

<400> 1648

```

gaattcgccc aaagaggcgg gaatttgccc ctccaagcca agaattcggc acgagggtca 60
ggctctctgg ggatgggtgg ccacatgatg tattcacaag tcttccaagc gactgtcaac 120
ttgggtccag aagactggag accacatggt tgggaattat gctgggcctt ctacatggcc 180
tggtctctct tcacctgtcg catggcgtcg gctgtcacca ccttcaacac gtacaccagg 240
atggtgctgg agttcaagt caagcatagt aagagcttca aggaaaaccc gaactgccta 300
ccacatcacc atcagtgttt ccctcgaggc ctgtcaagtg cagcccccac cgtgggtcct 360
ttgaccagct accacccttc ctctcgag 388

```

<210> 1649
<211> 334
<212> DNA
<213> Homo sapiens

<400> 1649
gaattcggcc aaagaggccg gaatttggcc ctcgaagcca agaattcggc acgagggaaa 60
aaaaagccaa atttcttgtt gctacaggat ataacaacaa tgaaaaggat ctctgtatttt 120
aaaaaaatat gtaattttta taaaaagaaa acttgttttt cattcaaact tgtcattttt 180
actttggtaa ctttttcata ggtcctaaaa gaaaactgtt ttgagaaact actgtaagta 240
ccttttcac atccctttgc cttctctctt ttccaaatc tttctacaaa aataacactt 300
gatgctggaa aaacccatgc tacgtctcct cgag 334

<210> 1650
<211> 513
<212> DNA
<213> Homo sapiens

<400> 1650
gaattcggcc aaagaggccg gaatttggcc ctcgaagcca agaattcggc acgagggaaa 60
acgtgaagct gaagcaaaaa tgatggttgc taacaaacca gataaaatac agcaagctaa 120
aaatgaaata agagaggaaa ttgaagagt ggaggcgaaa gtgcaacaag gggaaagaga 180
ttttgaacag atatctaaaa cgattcgaaa agaagtggga agatttgaga aagaacgagt 240
gaaggatttt aaaaccgtta tcatcaagta cttagaatca ctagtccaac cacaacaaca 300
gctgataaaa tactgggaag cattcctacc tgaagccaaa gccattgcct agcaataaga 360
ttgttgccgt taagaagacc ttggatgttg ttccagttat gctggattcc acagtgaat 420
catttaaaac catctaaata aaccactata tattttatga attacatgtg gttttatata 480
cacacacaca cgcacccaag cacaccactc gag 513

<210> 1651
<211> 394
<212> DNA
<213> Homo sapiens

<400> 1651
gaattcggcc aaagaggccg gaatttggcc ctcgaagcca agaattcggc acgaggggga 60
agaccagact gagcgatttg gaatccacat cctaagtctg ccacaagctg catgcacaaa 120
gaccttaggc acatctcttc atttctctgt acactggttt ctctactatg tctgtattaa 180
aatatataat ttggatgata gtaaaactgaa caaagcctta attttctccc aagctttgac 240
attgccaaagg gcagtttagga gacttcagga tcaagtttag gggacaagtt tttttctaat 300
actttcaaaa ggcccaagtg aagtgaggaa ggacacctca ctttctggct ctaaaagcat 360
ggtacatctc acaccaggat aaaagcacct cgag 394

<210> 1652
<211> 356
<212> DNA
<213> Homo sapiens

<400> 1652
gaattcggcc aaagaggccg gaatttggcc ctcgaagcca agaattcggc acgaggggtg 60
ataccttccc tcccaggctc cttaccttgg tcttttccct gttcatctcc caacatgctg 120
tgctccatag ctggttaggag aggggaaggca aaatctttct tagttttctt tgtcttggcc 180
atthtgaatt catttagtta ctgggcataa cttactgctt tttacaaaag aaacaaacat 240
tgtctgtaca ggtttcatgc tagagctaat gggagatgtg gccacactga cttccatttt 300
aagctttcta cttcttttcc ctccgaccgt cccctccct caccctcacg ctcgag 356

<210> 1653
<211> 399
<212> DNA
<213> Homo sapiens

<220>

<221> unsure

<222> (236)

<400> 1653

```

gcctgcgtca gattaaaaca ctgaactgac aattaacagc ccaatatcta caatcaacca 60
acaagtcatt attaccctca ctgtcaaccc aacgcaaccg ccatctcgaa gccagattcg 120
gcacgaggggt gcctcgcgggt gattgccaag gagaattacc ccctctacat tcgcagcacc 180
cctacggaga acgagctgaa gttccactac atgggtgcaca catctctgga cgtggnggat 240
gagaagatct ccgcaatggg gaaggccctg gtcgaccaga gggagctgta cctgggcctg 300
ctctacccca cggaggacta caagggtatac ggctacgtca ccaattccaa ggtgaagttt 360
gtcatgggtgg tagattcttc caaacacagc ccgctcgag 399

```

<210> 1654

<211> 333

<212> DNA

<213> Homo sapiens

<400> 1654

```

gaattcggcc aaagaggccg gaatttggcc ctggaagcca agaattcggc acgggggcta 60
actggctgag aatcaagaaa taaattattt tgtgaaattg aattctgtta gtttctcctt 120
aatctgtatt tgtgtcagat tttcaattgt aaataacttt agcaatttgg agagtctatt 180
attgcctatc aaatttgtta tctgcacagt ttttggaaag ctagagaatg tgactttaca 240
agcttatttt ggtgcttgga gacaggctcg gaaaaacgag tcatgtgact gagactcctc 300
aaaagtccac cactaattcc ttgttcactc gag 333

```

<210> 1655

<211> 314

<212> DNA

<213> Homo sapiens

<400> 1655

```

gaattcggcc agccaaagag gccggaattt ggccctcgaa gccaagaatt cggcacgagg 60
cataggattt gttcacatag tgttatgcat gatcttcgta aggttaagaa gccgtggtgg 120
tgcaccatga catccaaccc gtatatataa agataaatat atatatatat gtatgtaaat 180
tatagcactg agggccctgc tgccctgctg gaccaagcaa aactaagcct tttggtttgg 240
gtattatgtt tcgttttgtt atttgtttgt ttttgtggct tgtcttatgt cgtggcagac 300
caagtactct cgag 314

```

<210> 1656

<211> 152

<212> DNA

<213> Homo sapiens

<400> 1656

```

gaattcgcgg ccgcgtcgac accgctcact cgggggaaat ggattcttta ccacggctga 60
ccagcgtttt gactttgctg ttctctggct tgtggcattt aggattaaca gcgacaaact 120
acaactgtga tgatccacta gcatccctcg ag 152

```

<210> 1657

<211> 251

<212> DNA

<213> Homo sapiens

<400> 1657

```

gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt ctatcactat ctgcccgtgc 60
ccatggatga gatggggggg aagcaaggat ggggcagcca ccggcagtgg ctggggggccg 120
cgatcttggg ggtcctgttc ggggttacct tagtcacctt gacaatctac ttccgctgca 180
cagcgaacag cgtggcctgt agagacgggt tgcgagcgca ggctgagtgc cggaacacca 240
cgccactcga g 251

```

<210> 1658
 <211> 227
 <212> DNA
 <213> Homo sapiens

<400> 1658
 gaattcgcgg ccgcgtcgac ataatatattt acctagggtt taagttattt taatcagtta 60
 gacaaattag ctagacaaaa agtatgagca agaagaaagt ctgtttgcag attgccgta 120
 tctgggcatt catgcttttg gcatttcac taactatcca ttctctagcg gaaaatgggc 180
 aagaagtact atgttcattt aaaaaccatc ttgaaattgt actcgag 227

<210> 1659
 <211> 532
 <212> DNA
 <213> Homo sapiens

<400> 1659
 gaattcgcgg ccgcgtcgac ctgcactgtt tcagtttttc actcttagca ggaatttga 60
 gatgactttt gatgacaaga tgaagcctgc gaatgacgag cctgatcaga agtcatgttg 120
 caagaagcct aaaggtctgc atttgctttc ttcccatg tggttccctg ctgctatgac 180
 tctggtcac ctctgcctgg tgtgtcagt gacccttatt gtacagtga cacaattacg 240
 ccaggatatc gacctcttaa aacaatacca agcgaacctt actcagcagg atcgtatcct 300
 ggaagggcag atgttagccc agcagaaggc agaaaacact tcacaggaat caaagaagga 360
 actgaaagga aagatagaca ccctcaccca gaagctgaac gagaaatcca aagagcagga 420
 ggagcttcta cagaagaatc agaacctcca agaagccctg caaagagctg caaactcttc 480
 agaggagtcc cagagagaac tcaagggaaa gatagacacc cccaccctcg ag 532

<210> 1660
 <211> 163
 <212> DNA
 <213> Homo sapiens

<400> 1660
 gaattcgcgg ccgcgtcgac aggcccagat gaataaacta attaaaatat ttaaagccca 60
 tctgtttcat taacagatgc attttaaac aaatatagtt acttttattg gttacctaaa 120
 tctaaaatta ttttgatcaa tgatactaata gaaaatgctc gag 163

<210> 1661
 <211> 423
 <212> DNA
 <213> Homo sapiens

<400> 1661
 gaattcgcgg ccgcgtcgac cgagcgctgt acttttactt tgttctgttt taaaatgctg 60
 actcttctaa gacccgtgca ttccacatg gaattaacca tcagtttgct aaatttttta 120
 aaatcttggt aagaatttga ttgggaaggc cttgaggaag ctatagataa gtctgagtag 180
 aactgacatc tttgtaacaa gtcttctaata ctatgaatgc ggtatatatc ttcattttgtg 240
 taggtctttt taagtcccaa taattttctg taatttggag tacagatttt acacatatct 300
 ggttaaaact atacctgagt attttacaat tttactctat tatgcatggg acttgtccat 360
 ttcactctta tttgtattat tattttttta agatggagtt ttgctctgtc acccacgctc 420
 gag 423

<210> 1662
 <211> 138
 <212> DNA
 <213> Homo sapiens

<400> 1662
 gaattcgcgg gccgcgtcga cgagttgggt tgtatttctt tcatatccaa tttcccgttt 60
 tcctctgcct ctgacacctg cctctccttt tctccgtgct cacttcttt catgcttagt 120

ttcctcagat ggctcgag

138

<210> 1663

<211> 307

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (35)

<400> 1663

```

gaattcgcgg ccgcgctcgac cacctactct acganacaca aagttctatg gtctcgaaga 60
agcccgtgcc tgtttaaaac tgatcctaac taaaaacaga cttgagtga tatgagaatg 120
ttggtagtg gcagaagagt caaaaaatgg cagttaatta ttcagttatt tgctacttgt 180
tttttagcga gctcatgtt tttttgggaa ccaatcgata atcacattgt gagccatatg 240
aagtcataatt tcttacagat acctcataaa tagctatgac tttgtgaatg ataccctggc 300
tctcgag                                     307

```

<210> 1664

<211> 231

<212> DNA

<213> Homo sapiens

<400> 1664

```

gaattcgcgg ccgcgctcgac cgagttctta gcattttcac agtggtaaag cacaaatata 60
aggttcgagg cataaggtac aatgagacca cttcggaact tccgatgcat ttgttttctg 120
tctccgtgcc tccggcttcc caaagagatc cagggtcttg cgtttccagg gcgtggggac 180
cccggccccc tatgccgcca cgccgccaca ccgcctcacc cctggctcga g          231

```

<210> 1665

<211> 292

<212> DNA

<213> Homo sapiens

<400> 1665

```

gaattcgcgg ccgcgctcgac cataaagaaa ggacacatat ttcaggatgat ggatattcca 60
agtacactga tttgattttt acaaattaca taaatgtatt aaattatcat aaaaataaga 120
aacaaaacaa taaactgaga aaaaaattta aatgacctac aacctaat ttaatgcctg 180
catgggtattc ttgtgtatta atgtgttatt tttacttaac caatttctta ctattgaagg 240
cctgtttact gtttttctact cttctaaacc acaatgcaat aaaaacctcg ag          292

```

<210> 1666

<211> 112

<212> DNA

<213> Homo sapiens

<400> 1666

```

gaattcgcgg ccgcgctcgac gtgtgtataa aagggctcaa ttctataaat tatttgtaaa 60
ataagttaat atgttatgtg tgtatgtgtg tgtgtgtgctg tgtgcgctcg ag          112

```

<210> 1667

<211> 501

<212> DNA

<213> Homo sapiens

<400> 1667

```

gaattcgcgg ccgcgctcgac aaatatttat caatactgat cagactttaa agaaattact 60
ttgtaaacct gctgactacc tgtatgtatt gtatatatat tatatattaa atatataata 120
tattgagatt ataaaagatg aaaatattga atccttataa tattttaagt tgcagaatgt 180

```

```

atgttaaaaa gtgacttgaa tgagatgtat ttgtatctag aaatttttatt tctttttgga 240
atgagattaa aatacatttt gaaagttcag cagagtaagc aatttatttg tgttgccat 300
gtgtgagtggt attttaaagt ttatggacgc ttaatgggtt ctcccaaatt aaaattcttt 360
ttctgtcatt tccaaaaatc agaattcttc cctctcaa atcaggctctaca ggtatcatgt 420
atgcctttgt taaataggac ttgttttaaa ttgttagttt ctagaattag aaatattttt 480
gttttactgg ccaatctcga g 501

```

<210> 1668

<211> 182

<212> DNA

<213> Homo sapiens

<400> 1668

```

gaattcgcgg ccgcgtcgac ctgttccttg tataccttgt ttttctgggt tttgttgttt 60
ttctaattgt atttttgggt ttatcgtcct gtgatattta tgcctttaaag aggttctgtt 120
ttgatattgt tccaggattt gtttcaagat ttagagtctc ttttagcatt cttgcactcg 180
ag 182

```

<210> 1669

<211> 295

<212> DNA

<213> Homo sapiens

<400> 1669

```

gaattcgcgg ccgcgtcgac agttcaccat aagctagaag ttgtgtcaaa ttgagtcaag 60
attgtggctt tctcagctct ctgatcccat ttgagagag acatagctgg gatagtattt 120
tgcttataat aggagtacaa tacatatctt ttgaatttat gcttaaccct tgagcacatt 180
ttttttaatg gcctggatca cgtttctctg ttttttgaca tgtttctatg ttgcccattc 240
caattacttc ctactttcag cctatgctga agttcctcct ctggcaactc tcgag 295

```

<210> 1670

<211> 156

<212> DNA

<213> Homo sapiens

<400> 1670

```

gaattcgcgg ccgcgtcgac gtatattaaa aaatatttaa catttaacaa agtcaacact 60
gagacaagta cttactaaaa tacaaaagtt ttccattgaa aaaatactgt aattaaactt 120
gttaaaaata tgggtatata ttttactctt ttacaa 156

```

<210> 1671

<211> 298

<212> DNA

<213> Homo sapiens

<400> 1671

```

gaagaagtat cggatagaaa ttaagcctat gcatccaaat aactcacatc acacagtggc 60
ttctttggat gaattaaaag tatctatagg gaatataaca ctctccccag caatatctag 120
acacagtcca gtacagatga atcgggaattt gtctaattgag gagttaacaa aatcaaagcc 180
atctgtcca cccaatgaaa aagggaaccag tgatttactt gcttgggacc ccctatttgg 240
accatctctt gattcatctt cttcatcttc actaacttca tcatcatcag ccctcgag 298

```

<210> 1672

<211> 270

<212> DNA

<213> Homo sapiens

<400> 1672

```

gaattcgcgg ccgcgtcgac gttcctttaa gtcagtactc ttaaagctct tctggtcaca 60
gccctagcct tgtgtcatgg cttcaatctg gacactgaac atcccatgac cttccaagag 120

```

aatgcaaaag gcttttgaca gagtgtggtc cagcttggcg gaaccagtgt ggttggtgca 180
 gccccccagg aggcaaaggc tgttaaccag acaggtgccc tctaccagtg tgactacagc 240
 acaagccggt gtcacccac cccctcgag 270

<210> 1673
 <211> 255
 <212> DNA
 <213> Homo sapiens

<400> 1673
 gaattcgcgg ccgcgtcgac agcccacatt attattaata tatagaggga ccataaatta 60
 ttattatttt tgccctgtga tataccatag aatacagtaa gatataatgag tcaaagtcac 120
 ccactcctct gataaatcaa tttcattctg ctatttcatt ctcttccaat tttgctgtgt 180
 aaattttcaa taacaaatct ttattgttga ttatacagta tgtatactac tatcttaatg 240
 actaggcttc tcgag 255

<210> 1674
 <211> 225
 <212> DNA
 <213> Homo sapiens

<400> 1674
 gaattcgcgg ccgcgtcgac attgaattct agacctgcct cgaaactttt cccattaaat 60
 tcgctatttta tatgagccag agtgattgat ctttcttctc tgcataattta accaaatcac 120
 tcctctgttt aaaatccttc ctccagtatt aatatagcat ataaaacat gcaaactctg 180
 aagcatgcta tctcttcaat cttattttca gccactcccc tcgag 225

<210> 1675
 <211> 113
 <212> DNA
 <213> Homo sapiens

<400> 1675
 gaattcgcgg ccgcgtcgac attttaaaaa ctgatcaatt tttcatgttt acataaagta 60
 taaaaacatc tatcagtatg ctacatacca tgtttaaaac agcgatcctc gag 113

<210> 1676
 <211> 159
 <212> DNA
 <213> Homo sapiens

<400> 1676
 gaattcgcgg ccgcgtcgac ggcacccctaa aaatagtaaa cataagacct ttttttaatg 60
 tgtgtgagat ggagtttggc tcttgttgcc caggctggag tgagtggtt attcataggc 120
 atgatcatgt atttcagacc tggaagtcct gggctcgag 159

<210> 1677
 <211> 132
 <212> DNA
 <213> Homo sapiens

<400> 1677
 gaattcgcgg ccgcgtcgac cgaagaaata atacagaaac ccatccaaaa agcaaaacaa 60
 ggctcattta gattccttcc aattatgtgt tttctggcgc ttcttttctt tttcgttgct 120
 gagctcctcg ag 132

<210> 1678
 <211> 136
 <212> DNA
 <213> Homo sapiens

<400> 1678

```

gaattcgcg cgcgctcgac cccctcaaaa aatttactag aaacacatac gtttcttggt 60
tcttattact atgaaactaa attttgtcta ctttcttgat cgtttcatct caattttttt 120
cttctcaca ctcgag                                     136

```

<210> 1679

<211> 454

<212> DNA

<213> Homo sapiens

<400> 1679

```

gaattcgcg cgcgctcgac gcctgtaatc ccagcaccag gaatttgaga ccagcctggc 60
caacctgggt aaacctgtc tctactaaaa atacaaaatt agccaagtgt ggtagtggg 120
gcctatagtc ccagctactt aggaggtga ggcaggagaa tcgcttgaa caggaggca 180
gaggctgcag tgacacaaga tcatgccact gcactccagc ctgggtgaca gagcgagact 240
ctgtctcaaa aaaaaatttt ttttttaaaa aaaggacgtg agtaacatgc cttagagggt 300
gggagggagg aaaggctgtt tcctactggg gaaatcagaa aaggtttcaa ggaggaggta 360
acatctgagc tgggcttttg cttgcagaat gcggaccag aatgattgga gagcaggaag 420
agcaatccac atagaagaag cacagagcct cgag                                     454

```

<210> 1680

<211> 235

<212> DNA

<213> Homo sapiens

<400> 1680

```

gaattcgcg cgcgctcgac cctaaccgt cgattgaatt ctagacctgc ctctattact 60
cctaaccat ctacaaggag aaaaaacca aatcattaat atgacttgga agatactttt 120
tcattctgct ctggccacat tgcgtttctc atccctcccc attccttcac aggtacttta 180
ctctgacatg cagaacaagg agcagctccc tgaacacatc atgtctcttc tcgag       235

```

<210> 1681

<211> 528

<212> DNA

<213> Homo sapiens

<400> 1681

```

gaattcgcg cgcgctcgac tgctgcagaa ggggtgccact gatgaagtga gcgcaaacag 60
aagcagctct tctctattaa cagaattaaa cactacaaag tgtttctctg gaggggtgca 120
tttactctct gctttcttat tttttgtggt ttgacctcag ctatcaccac tgggaagccc 180
aggaaaagct gctctgaata ttcattcact ggacaggtaa agactgggac ttcagaattt 240
tgaagacgat cttagactct tacacctgtg gtcttgctag atgtgttgat tcatgactct 300
ctcaatctgt accccaaaca ggaagggtct gggaagtaaa gtatgtaaac gtgtgttccc 360
ttaagggttag aattatgtat atgtgttata acctcttatt tgtagaaaat ggagaggcat 420
actggttaact aaggagctac aaatacagac aaggaaatga catatctct aatttttaaat 480
ctagattgag aaaaagggtg aaaagaatgt gaaaatatta aactcgag                                     528

```

<210> 1682

<211> 364

<212> DNA

<213> Homo sapiens

<400> 1682

```

gaattcgcg cgcgctcgac ttagcatcta tcaaggagc accatcatgt acggggcgct 60
gctgctgttt gagtcggagt tcgtgcacat cgtggccatc tccttcacct cgctgaccc 120
caccgagctg ctcatgggtg cgctgacct ccagacctgg cactggctca tgacagtggc 180
ggagctgctc agcctggcct gctacatcgc ctccctgggt ttcttacacg agttcatcga 240
tgtgtacttc atcgccacct tgtcattctt gtggaaagtc tccgtcatca ctctggtcag 300
ctgctcccc ctctatgtcc tcaagtacct gcgaagacgg ttctctcccc ccagactact 360
cgag                                     364

```

<210> 1683

<211> 180

<212> DNA

<213> Homo sapiens

<400> 1683

```

gaattcgcg cgcgctcgac ccaaaccata tcacatagtc tccctctttt tatgtttttg 60
ttatttgtgt tttgttttat gtttacecaa ataatcattt attttttatt aacatttatg 120
ggttatgttt accatataac ccatttttat accttactgt cctatcccca tcccctcgag 180

```

<210> 1684

<211> 285

<212> DNA

<213> Homo sapiens

<400> 1684

```

gaattcgcg cgcgctcgac cgtgagactt aagtccaaac ttgcgcttca gcaggtggaa 60
ctgctctttg acgtagtggg aaaactcgta ctcgatatctc atccgctggg agaggatctg 120
cacagcctca ggagagggga cagtcttctt caccgtcaca gtcattgttc caagcttcct 180
gtgctctggg tctttgtaga tactgagcac gcccttgaag taatgaggta aaaatcttcc 240
cagtaacagc agcacatctt ccaactcttc aagaatcccc tcgag 285

```

<210> 1685

<211> 283

<212> DNA

<213> Homo sapiens

<400> 1685

```

gaattcgcg cgcgctcgac cctaaaccgt cgattgaatt cttttttctc tttgcatttg 60
agtttcagaa atttctattg acatagcttc aaactcagag attattctct tggctgtgtc 120
cagtctactt atgagcctat caaaagcatt cttcatttct gttactgtgt tttttttatc 180
tctagcatgt cttttttatg atttcttagt ttccatccct cttcttcaag ggcagacaat 240
tcctactgt ctttgcattg tgtccacctc ccccagctc gag 283

```

<210> 1686

<211> 187

<212> DNA

<213> Homo sapiens

<400> 1686

```

gaattcgcg cgcgctcgac ctgggtggtg gggtcaggaa ggggaaagag gaagtacaaa 60
taagcaacct ggacattttt attgtttttc tcttatctgt tagtctactt gaagagctat 120
ccttgaaagt gagtgttcta gatctatgaa actgggcagc tatcatagat ctaaaacact 180
cttcgag 187

```

<210> 1687

<211> 306

<212> DNA

<213> Homo sapiens

<400> 1687

```

gaattcgcg cgcgctcgac aaaactcaca gataacaaca gattttactg cagtcattgc 60
agagctcgac gggattctct aaaaaagata gaaatctgga agttaccacc tgtgctttta 120
gtgcatctga aacgtttttc ctacgatggc aggtggaaac aaaaattaca gacatctgtg 180
gacttcccgt tagaaaaatct tgacttgcca cagtatgtta ttggtccaaa gaacaatttg 240
aagaaatata atttgttttc tgtttcaaat cactacgggt ggctggatgg aggccacaag 300
ctcgag 306

```

<210> 1688

<211> 376

<212> DNA

<213> Homo sapiens

<400> 1688

```

gaattcgcg cgcgctcgac caaagcttcc aatagacctt tctctcccgc tatttttaac 60
attgatttta tcgaggccag tctctttagg agtcaagagc ttgtagacac tgtccctgtt 120
tcagttggtc accgaaaata ctcaagcccc tcaacacccc ctcttctctca tttagccaga 180
ttctgcttat tttaaacatt caacttccat cctctcttcc cgctgactac ccaccacact 240
ctgttcattc gcttcaactc tcaattgcta ttgtactttt atgctgttcc acacgattta 300
ccagttactc ataatatgtc ttgtattatt aatggatatt ttacacattc tagcttgcac 360
cccccaaagc ctcgag                                     376

```

<210> 1689

<211> 359

<212> DNA

<213> Homo sapiens

<400> 1689

```

gaattcgcg cgcgctcgac gacttgggac aagaagaaaa caagacatct tcacaaggaa 60
aaccaagtac taaaaaaagt atcctcccaa ctctgaagag atagaacaca aacatggccg 120
acagtggact tagggaacct caagaggact ctcaaaagga tttggaaaat gatccatcag 180
taaattctca ggcgcaggag accacaatca tagcaagtaa tgctgaagaa gctgagatcc 240
tacactctgc ctgtggtctt agcaaagacc accaagaggt agagacagaa ggtccagaaa 300
gtgcagatac aggtgataaa tcagaaagtc cagatgaagc aaatgtgggg gatctcgag 359

```

<210> 1690

<211> 130

<212> DNA

<213> Homo sapiens

<400> 1690

```

gaattcgcg cgcgctcgac tcgattgaat tctagacctg cctcgagaaa tgccgatgga 60
aaaccagaga gaggccctct cacataagaa gcccagcga gtgaccaga gagaaacagc 120
gggactcgag                                     130

```

<210> 1691

<211> 656

<212> DNA

<213> Homo sapiens

<400> 1691

```

gaattcgcg cgcgctcgac tgtattagtc catttttatg ctgctgataa ggacataact 60
gaaactgggt aattttttaa gaaaaagagg tttaattggac tcacagttcc acatggctgg 120
ggaggcctca caatcacacc agaaggcaaa agccatgtct tacatggagg cagataagag 180
agaatgagaa ccaagcaaaa ggggtttcct cttataaaac catcagatct cgtgagactt 240
actcactacc atgagaatgg tatggggcaa cgcgcccat gattcaatca tctccactg 300
agtccatccc acaacacatg ggaactatgg gaactacaat tcaagatgag atttcaatgg 360
ggacacagtc aaacctatata aacacatttt ctaaattatc agtcaaaaaa caaatcataa 420
taaacatata aatatttggc gctaaatgat aaataacaca aaagtgtgt aatggagcaa 480
aagttgtata tagagagggt tataccctaa aatgtctatg ttagaaaaga aggttgaaaa 540
tttaaaacat aggtattaga tacacagtag gaaaagagta aacccaaaga acatggagga 600
aaaagataat ataggaaagg ggagaaatca atgaagtaga aaaccatctc cctata 656

```

<210> 1692

<211> 240

<212> DNA

<213> Homo sapiens

<400> 1692

```

gaattcgcg cgcgctcgac attaaagaat atcagaaaag tatatggaag gtgtatgtgg 60

```

tatcgtttac gggtattaaa accccagcca aatattatc ctacagtaaa gaaaatagtt 120
 ctgcttgac gatgggcatt gttcttattc cttgcatata aagtttccaa aacagaccga 180
 gaataccaag aatacaatcc ttatgaagta ttaaatttgg atcctggagc caatctcgag 240

<210> 1693

<211> 217

<212> DNA

<213> Homo sapiens

<400> 1693

gaattcgcgg ccgcgtcgac catactttta tggttttgta tttcgcatc aaatgtttga 60
 cacttttgaa atgtttccaa atggctatgc agttattcca acatcattta ctgaactgtc 120
 ctataatttg gggtatcttc tttatcata tccgaattac catagtagtt ggacctattt 180
 ctggattttc tattttgttt catgggcagc gctcgag 217

<210> 1694

<211> 304

<212> DNA

<213> Homo sapiens

<400> 1694

gaattcgcgg ccgcgtcgac tcgattgaat tctagacctg cctcgagggg gtaatgacac 60
 agttttttaa agaggagaaa taatagatac tatagaggag aagggaaaga aaatgaaaga 120
 gaggaaaatg tgaagagag aaatagagag aaaaatttct taaaaatcag aggaaaaaat 180
 gggggcttgc tataaggaaa tagattttat gagaataact ttaaaaaata atatagataa 240
 taataataat aaataccttt aaaggcaggc taaaaaaatg cattctctct ccattaccct 300
 actc 304

<210> 1695

<211> 396

<212> DNA

<213> Homo sapiens

<400> 1695

gaattcgcgg ccgcgtcgac aataaacaaa caaccaaagt gataaatgga tagttaaggg 60
 aggttgctcg aacagggatt ataattagtt tacatacata ctcccttaaac agataaatac 120
 attacacctt tcaaagaata aatgaaaaat agagagacat acctgggtcc aaaacaaggc 180
 tgtatcttct gccactgtaa taaaatagat gcaattgagg ttcataaata aaagaataaa 240
 tacttaaacg tgaagggtga ctaaattgcgg ggaagaaaga ttgcaaataa atacatgggc 300
 caaagatgtt tggtttgccc atggagtttt aattaataagg aaaacaataa 360
 cccaaaataa ggaagactga caaatgtgag ctcgag 396

<210> 1696

<211> 215

<212> DNA

<213> Homo sapiens

<400> 1696

gaattcgcgg ccgcgtcgac ggactaatcc ccttcgttgc tccaccactg gtcattgtga 60
 tgacaaaaac ttatattccc atattagctt ttactcagat ggcttatgga gccagtttcc 120
 tatctttctt ggggtgggac agatggggtt ttgctctacc agaaggtagt ccagccaaac 180
 cagactacct taatttagct agcagcgagc tcgag 215

<210> 1697

<211> 157

<212> DNA

<213> Homo sapiens

<400> 1697

gaattcgcgg ccgcgtcgac aggacaagcc cccaacgctt actaaattct gtgaaagcat 60

gtggagattc acattttatt tatgtatatt ctgctatgga attagatttc tctggtcgtc 120
accttggttc tgggacatcc gacagtgcag gctcgag 157

<210> 1698
<211> 227
<212> DNA
<213> Homo sapiens

<400> 1698
gaattcgcgg ccgcgtcgac taaacattga tgaacttgat tatattttgg tgcagagctg 60
aactgcttta tcagatggga agttttgtct catgttcact aaatccaagt aagtttacc 120
tagaattatt aaaaacagag agaagttcta gtttcatgct tttcacgctt ctgaacaaca 180
actttttgtg ctatctgttc tctgatttac acccaccaga actcgag 227

<210> 1699
<211> 148
<212> DNA
<213> Homo sapiens

<400> 1699
gaattcgcgg ccgcgtcgac ggggaataaa ccaagtgact gtgtacccta caaagatgaa 60
gaactttatg atcttccagc tccttgact cctttgtccc ttagttgcct tcagctcagt 120
actccagaaa atagagagag cgctcgag 148

<210> 1700
<211> 186
<212> DNA
<213> Homo sapiens

<400> 1700
gaattcgcgg ccgcgtcgac gttgattttt attcttccct ctgccttcta tatcaagttg 60
gtgaagaaag aacctatgaa atctgtacaa aagattgggg ctttgttctt cctgttaagt 120
ggtgtactgg tgatgaccgg aagcatggcc ttgattgttt tggattgggt acacaagcac 180
ctcgag 186

<210> 1701
<211> 205
<212> DNA
<213> Homo sapiens

<400> 1701
gaattcgcgg ccgcgtcgac caaaaggcgg tgtgaagtgt agtgtcatat aaaattaaga 60
aatgcagaga ttattttctg tggcactttt tttccattt tcttccatta gatccctagg 120
cagaattaaa ttgttttagta catccttaat tctctgtaaa caccactag cacctcctga 180
cctaaatctc ccagctcatc tcgag 205

<210> 1702
<211> 157
<212> DNA
<213> Homo sapiens

<400> 1702
gaattcgcgg ccgcgtcgac acatcacccct ctccctgtggt taaattgaga tgggtggcact 60
ggctgtcttc tatattattg ctgcaccttt cctcaccagg ggtgcacaca aaactgggag 120
tgaagatgga atgagaagaa cagagaacaa actcgag 157

<210> 1703
<211> 443
<212> DNA
<213> Homo sapiens

<400> 1703
gagcatgggtg gtgagcaggg acggtgcacc ggacggcggg atcgagcaaa tgggtctggc 60
catggagaca cggagggtcc tacgctcggg cggggggcag ctctcggggc tgctgggtata 120
acctgcgcta cttcttcttc ttcgtctccc tcatccaatt cctcatcatc ctggggctcg 180
tgctcttcat ggtctatggc aacgtgcacg tgagcacaga gtccaacctg caggccaccg 240
agcgccgagc cgagggccta tacagtcagc tcctagggct cacggcctcc cagtccaact 300
tgaccaagga gctcaacttc accacccgcg ccaaggatgc catcatgcag atgtggctga 360
atgctcgccg cgacctggac cgcataatg ccagcttccg ccagtgccag ggtgaccggg 420
tcatctacgc gaacaatctc gag 443

<210> 1704
<211> 171
<212> DNA
<213> Homo sapiens

<400> 1704
gaattcgcgg ccgcgtcgac catgtggcct tcttcccttt gtattatattt cctttcgtgt 60
gtgatgaaga gcaagatgag acaggcctta ggatttgcca aggaagccag agagagccct 120
gacacccaag cccttttgac ctgtgcagag aaagaggaag aaaacctcga g 171

<210> 1705
<211> 188
<212> DNA
<213> Homo sapiens

<400> 1705
gaattcgcgg ccgcgtcgac ctcaaagaac acagtagcac ctaaattctgt tttcaattgg 60
gcttaaaaat tgacatgcaa tctcttaagt tttttgttca gctacttcac actgagtacc 120
tcaaattctgc tctggagtcg attatgccac ctgtgtgtca ggatgcacct gaaagccccc 180
agctcgag 188

<210> 1706
<211> 317
<212> DNA
<213> Homo sapiens

<400> 1706
gaattcgcgg ccgcgtcgac cttgaagtca ttatcatctt gctgctcatc tttctccgga 60
agagaattct catcgcgatt gcactcatca aagaagccag cagggtctgt ggatacgtca 120
tgtgtcctt gctctaccca ctggtcacct tcttcttgcg gtgcctctgc atcgccctact 180
gggccagcac tgctgtcttc ctgtccactt ccaacgaagc ggtctataag atctttgatg 240
acagccctg cccatttact gcgaaaacct gcaaccaga gaccttcccc tcttccaatg 300
agtcccgcat cctcgag 317

<210> 1707
<211> 169
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (45)

<220>
<221> unsure
<222> (123)

<220>
<221> unsure
<222> (126)

<220>

<221> unsure

<222> (150)

<400> 1707

```

gaattcgcgg ccgcgctcgac cccaaccaga tcggtgactc ctaanatctg agacaggaca 60
tcgtgactgc tggtagtaat atgggtggtgc attgtttttt ccacccaaac ttaacatagc 120
ctnttnatac atttttatga aaaatttcac tgtcagctgc ctgctcgag 169

```

<210> 1708

<211> 116

<212> DNA

<213> Homo sapiens

<400> 1708

```

gaattcgcgg ccgcgctcgac ggactgtacc gtccctttaca aatgattctt atcaagtata 60
taatgtgttc agtactaact cttttcaact tctcactgtc aaacgtcccc ctcgag 116

```

<210> 1709

<211> 156

<212> DNA

<213> Homo sapiens

<400> 1709

```

gaattcgcgg ccgcgctcgac tatgcatctc cctacaatta cctgctggaa ttcccttggg 60
ttacctccca tcttccttat gtccctttac tctttacctc caaggcccgga tcaccacaac 120
caaacaaacg gcattcgccc tcaccacggc ctcgag 156

```

<210> 1710

<211> 224

<212> DNA

<213> Homo sapiens

<400> 1710

```

gaattcgcgg ccgcgctcgac ctaaagaatt agatgaagtc aggagcatat tgtgaattta 60
gttatacatg gcacttggtc tatgttcttt tcttcacctc aacctccttc aaatcttcct 120
tctctccctt tgggaccatc atggatacca cctctgctct ggaaccctac cttctgttcc 180
agctgagtgt ggtctcacct tcttttgaa cccctgaact cgag 224

```

<210> 1711

<211> 195

<212> DNA

<213> Homo sapiens

<400> 1711

```

gaattcgcgg ccgcgctcgac aggaatcgct ccagagggca aaaccgtcca actaacgtta 60
aggaaaacac aatcaaattt gaggggtgact ttgatttcga gagtgcaaat gcccagttca 120
accgagagga gcttgacaaa gaatttaaga agaaactgaa ttttaaagat gacaaggctg 180
agtagatggc tcgag 195

```

<210> 1712

<211> 243

<212> DNA

<213> Homo sapiens

<400> 1712

```

gaattcgcgg ccgcgctcgac acattataaa acagggggaa agcagactga ccctcttttt 60
aaaagtttac cccctcttca actgaaccct aaagacactg tcatgaactg tgttgatgg 120
tggaatcag tatttctgtt tgtggtgttg ttatttgta catctgttc atgtctaggt 180
gttgtgggtg tggctgttga aggaagtttg cagtcttgca gctttttatt cctgtgtctc 240

```

gag

243

<210> 1713

<211> 171

<212> DNA

<213> Homo sapiens

<400> 1713

```

gaattcgcg cgcgctcgac agggggggag attaagggtcc agagagggca agctgcttgc 60
cccggtggga gttgggtcat agtcaggatg aattgaggcc ttcagctggc aggggtgcag 120
ccctaggctg gcctggctga caggctggat gggcatggct agtgtctcga g 171

```

<210> 1714

<211> 225

<212> DNA

<213> Homo sapiens

<400> 1714

```

gaattcgcg cgcgctcgac tgggtgttact gtattacaat tagtattcta aaggcagaag 60
cagaagtagc tgcttttttag caatagaatt gtttcagtat tttgctgctg tttaatgcgc 120
atcttcagaa aacttcccag tggcttcaag gaatttgggg atctctctgg caacaaattg 180
tgaaacatga aatttctgct gactttaata tatgaaaccc tcgag 225

```

<210> 1715

<211> 162

<212> DNA

<213> Homo sapiens

<400> 1715

```

gaattcgcg cgcgctcgac gtgaaaactc atatctgaaa gattataaat atactttata 60
tcaattttcc agagaactta aacttctaata aatattggta atattctcat ggttactatt 120
ttatattctt tctgctttt ttagctact ggtgtactcg ag 162

```

<210> 1716

<211> 172

<212> DNA

<213> Homo sapiens

<400> 1716

```

gaattcgcg cgcgctcgac atataggaaa ctaagcattg tatttttttt aacaaatcta 60
aaaaagcact atgaactaca ggtgtttgac tttcaaaata tattttgtat tgtaaatatc 120
ttcacattgt gtgaatactg gaagctgcag atctttgcta ggagcactcg ag 172

```

<210> 1717

<211> 146

<212> DNA

<213> Homo sapiens

<400> 1717

```

gaattcgcg cgcgctcgac gtttttcaca tactttgtct agtttatccc ccaaataaac 60
ctagtaaagt tgtatctcct tttatagata gtaaaattat gcttcataat ggtagattaa 120
cttgacacat cctacgcgta ctcgag 146

```

<210> 1718

<211> 152

<212> DNA

<213> Homo sapiens

<400> 1718

```

gaattcgcg cgcgctcgac ctttttcttt ccttcccaat tccttgact ctaaccagtt 60

```

cttggatgca tcttcttccct tccctttccct cttgctgttt ccttcctgtg ttgttttgtt 120
gcccacatcc tgttttcacc cctgaactcg ag 152

<210> 1719
<211> 245
<212> DNA
<213> Homo sapiens

<400> 1719
gaattcgcgg ccgcgtcgac ggtgcctctc tagcctgcac aaatgattga caagagatca 60
cccaaaggat tattcttgaa ggtgtttttt ttctttattt tttttttttt tttttttttc 120
ttttttcttt tttttttgca catgacagt tttgtattga ggaccttcca aggaagaggg 180
atgctgtagc agtggtgcct ggggtgcctg cctccagtgt cccacctcct tcaccacccc 240
tcgag 245

<210> 1720
<211> 198
<212> DNA
<213> Homo sapiens

<400> 1720
gaattcgcgg ccgcgtcgac ccaactacca ccaagaaata attagattct gtagacaaaa 60
tatatagtaa tttctctgta ccagagcagt tcttaaatat ctgtttgaat gttgtttctg 120
gtgggggttt ttctctttct gatttgtcat tttaaagggt tagacttagc cactgaggag 180
gtggccagcc gactcgag 198

<210> 1721
<211> 212
<212> DNA
<213> Homo sapiens

<400> 1721
gaattcgcgg ccgcgtcgac gaaataatgc aattttcta tctctggatg ttcgttgaaa 60
atatattaga cattctccct gaggttaaaa acaaaaagta cgtgaccagt ctggtaagaa 120
gtattaatga agtagctaatt attacagctt cattttctac tagcacctat cataatgggc 180
ttagtcattt cacacaaatc agaacactcg ag 212

<210> 1722
<211> 415
<212> DNA
<213> Homo sapiens

<400> 1722
gaattcgcgg ccgcgtcgac gctctatgca atcatgtatg tttatttttc tttgttgct 60
tgtgctttta gggcatatg caagaagtga tacaacctg aaacctaggc cagtgtcatg 120
gagtttttca cctgtgtttt cttctactgg ctttacagtt tcaggcctta caattaagcc 180
cttgtctatt ttgaatggat tttgtgtgag ggacattccc tccacaaggg cttcctctg 240
ccttgctgat gctcctccgt ctccttctgt tctctccac tccacctct tcatgtggaa 300
gaaccttggt catcctcgtg tggcctctct gtctatcca gcccccctg gtgacctcac 360
acttgctct ctagctggg tctctctccc aaacctctt ccaggctctc tcgag 415

<210> 1723
<211> 252
<212> DNA
<213> Homo sapiens

<400> 1723
gaattcgcgg ccgcgtcgac gtttctatgc ttcattggat ttcagggtgt tcggaacatc 60
agtgggaagc agtccagcct gccagctatg agcaaaagtc ggcggctaca ctatgagggg 120
ctaattttta ggttcaagtt cctcatgctt atcaccttgg cctgcgctgc catgactgtc 180

atctttcttca tcgttagtca ggtaacggaa ggccattgga aatggggcgg catcacagtc 240
 caagtgcctcg ag 252

<210> 1724
 <211> 228
 <212> DNA
 <213> Homo sapiens

<400> 1724
 gaattcgcgg ccgcgctcgac ggggaatttg gcataatata ctttggtctt ttgtgtctcc 60
 tcatcactct gaatcaggat ctttccaatt cgtatggatc gacagcagtc tcgtaaacct 120
 tgtttccattg cctcaccgct tctcattatg ctgacccac aatttccctt ctcaaatttc 180
 actccttcat acttgtaacc tgttggagtg gtcaccatgc tactcgag 228

<210> 1725
 <211> 257
 <212> DNA
 <213> Homo sapiens

<400> 1725
 gaattcgcgg ccgcgctcgac gaccatcttc atccttccat gtacctcca tttgtctccc 60
 cacttcactc cctccctctt ttgttttctt tccccctctt cttttcttcc attcactatc 120
 aggaagggca acctgtggag gccccagtc gcccacaccc gagccaacag ggactagagg 180
 cagcagcggc tgcaacagtg agtgaattaa aaccaacaaa ccatcacatt tcatttaaag 240
 aggtggcgca cctcgag 257

<210> 1726
 <211> 183
 <212> DNA
 <213> Homo sapiens

<400> 1726
 gaattcgcgg ccgcgctcgac gaaaacagtg atgttccact tgtttgtttt tagcctactt 60
 ccctttatgc tccccgctcc tgaaggatct cccgagttag cagggcctca tgtggatccc 120
 cagggcccggg gatctttgtc cagtgtccca gccccagcc caccctgcc caacactctc 180
 gag 183

<210> 1727
 <211> 137
 <212> DNA
 <213> Homo sapiens

<400> 1727
 gaattcgcgg ccgcgctcgac acctgcccga gacgttatc aaagatgaat gagaaagttc 60
 tattcttttt catcatttgt gtgatcaggt tgcaaaggac atgctctttc ctcgatgaaa 120
 ctgatgtctc actcgag 137

<210> 1728
 <211> 198
 <212> DNA
 <213> Homo sapiens

<400> 1728
 gaattcgcgg ccgcgctcgac taaaccgctg attgaattct agacctgcct cgagccgggg 60
 ggagctgcta agatgggttt gaactataat gctggcatcg gcattactca gatctttttt 120
 gtttttttga tacagagttt cgctcttggt gccagggctg gagtgcaatg gcacgatctc 180
 ggctcaccac atctcgag 198

<210> 1729
 <211> 302

<212> DNA

<213> Homo sapiens

<400> 1729

```

gaattcgcgg ccgcgtcgac aaaacttcga gactcagatt gttgcgtctg atcacacata 60
ttataactca aaactagagc catctggcaa aaataagaat cgatcaaaga tttcaaacia 120
agatcagtc aacaaaccag taaaaacttc agcgtcgagc agagttgaaa ctcatcagag 180
tgaagttgct cagtcatttt caggggaaaa agctaataca aaaactcaaa gaagccaaac 240
tcagaccatt ttagcaaatg ctgatacatc cactcctaca gattgttccc ctaacactcg 300
ag                                                    302

```

<210> 1730

<211> 255

<212> DNA

<213> Homo sapiens

<400> 1730

```

gaattcgcgg ccgcgtcgac tgcaaaagga gatcacaccc ttgccccgct gagccccgtg 60
ataacaagtc actccagact aacctgtgtg ccagacattt gtgcattggt gcactttgag 120
gttattattt atcaagttct tgaagggaagc agaaagaggg actcctctct ccctccgtgt 180
atagtcctcta tgtttgtgct agtttttctt ttttttctct gtgtccagtc agccacaggg 240
cccgcatccc tcgag                                                    255

```

<210> 1731

<211> 243

<212> DNA

<213> Homo sapiens

<400> 1731

```

gaattcgcgg ccgcgtcgac ctttttggga attaaatcct tagtctacat gttggcagca 60
tctttacttg gcctgggttt gcaccaatt tctggacatt ttatagctga gcattacatg 120
ttcttaaagg gtcatgaaac ttactcatat tatgggcctc tgaatttact taccttcaat 180
gtgggttatc ataatgaaca tcatgatctc cccaacattc ctggaaaaag tcttccactc 240
gag                                                    243

```

<210> 1732

<211> 205

<212> DNA

<213> Homo sapiens

<400> 1732

```

gaattcgcgg ccgcgtcgac gaaattacag tttgtatctg tttcttagta ggtgtggcct 60
ttaaaatatg tgcttattca ttgttaaatt ccagaataat agagtaatac ttaatactgt 120
acattcccac ttacgtatat tttattaaaa tttataagca agaaattata cataagtggg 180
catgatctta gggagacttc tcgag                                                    205

```

<210> 1733

<211> 115

<212> DNA

<213> Homo sapiens

<400> 1733

```

gaattcgcgg ccgcgtcgac ggatgcagtg gctattcaca ggcgcgatcc cactactgat 60
cagcacggga gttttgacct gctcgtttc cgacctgggc cggtcacccc tcgag 115

```

<210> 1734

<211> 484

<212> DNA

<213> Homo sapiens

<400> 1734

```

gaattcgcgg cgcgctcgac agcaagtccc acgcacagtc ctgaaaaaaa ttttaatctt 60
cttttcttag aactatcttg gttggcatca tcaggccctg agagcacagt gcatgtcagc 120
atctaagatt ccacttttca aaatgaagga cctgatactg atcctatgcc tcctggaaat 180
gagttttgca gtgccgttct ttcctcagca atctggaaca ccgggtatgg ctagtgtgag 240
ccttgagaca atgagacagt tgggaagtct gcagagatta aacacacttt ctcagtattc 300
tagatacggc tttggaaaat catttaattc tttgtggatg cacggtctcc tcccaccaca 360
ttcctctctt ccatggatga ggccaagaga acatgaaact caacagtatg aatattcttt 420
gcctgtgcat cccccacctc tcccatcaca gccatccttg aagcctcaac agccagggtc 480
cgag                                         484

```

<210> 1735

<211> 278

<212> DNA

<213> Homo sapiens

<400> 1735

```

gaattcgcgg cgcgctcgac cctaaacat cacaatgtcc tgttgtatgg catccccctc 60
atcttgaaat gtccctctcc tcagttccta tatgttatca cacatgcctg ccttggtctc 120
tccctctagt tgttctctct ctgtctctct tgggcttctt attgtctgct cactccttct 180
tcagtgtcct cacatggggt tccttccctt ctcagctgat gccatcacct ggggaatcac 240
agttactcag cagcactggg gcctctccat ctctcgag 278

```

<210> 1736

<211> 197

<212> DNA

<213> Homo sapiens

<400> 1736

```

gaattcgcgg cgcgctcgac gatctatctt aggtggacaa ayccatggaa tttgctatgc 60
ctaagtcctt cagggtcata gctgaaagaa gtatgcattc atggtacgtt tgttttttaa 120
tatgctttat tctgcatatt agtatcacat tacacagttt ggtcatggta tttgtaacct 180
ggagagaaca tctcgag 197

```

<210> 1737

<211> 424

<212> DNA

<213> Homo sapiens

<400> 1737

```

gaattcgcgg cgcgctcgac cattttggag ccactgaatg gactggtgat gagacgaagc 60
aacctttaat tgggaccatg cttctccagt acattcggtt gtattccatg gtgtaaaccc 120
ggccttacgc gtggctccga ctttcggttg aaatgcattt gcgtagcacc acccaggggc 180
tcccttgctt tggctagagc ctataaaaag accccagggt ttgcgaagga ttttgaacac 240
cagcgtcttt taacatgttg aactttcggt tttggtttag ctctgtgaac gtatttaaaa 300
cttgctacat tattccacag tgaaagtgg aaccttttta agagtattca tagagtgcct 360
tttaacatct gtcataattt ctataaaca cttttcagtg agaagcgtat atagtgtact 420
cgag                                         424

```

<210> 1738

<211> 438

<212> DNA

<213> Homo sapiens

<400> 1738

```

gaattcgcgg cgcgctcgac cttcatgtgt ataacattac tgattgccag cctcatctgc 60
cttactttac cagtatttgc tggccgttgg ttaatgtcgt tttggacggg gactgccaaa 120
atccatgagc tctacacagc tgcttgtggg ctctatgttt gctggctaac cataagggct 180
gtgacggtga tgggtggcat gatgcctcag ggacgcagag tgatcttcca gaaggttaaa 240
gagtgggtct tcatgatcat gaagactttg atagttgcgg tgctgttggc tggagtgtgc 300

```

```

cctctccttc tggggctcct gtttgagctg gtcattgttg cccccctgag gggtcccttg 360
gatcagactc ctctttttta tccatggcag gactgggcac ttggagtcct gcatgccaaa 420
atcattgcag cgctcgag                                     438

```

<210> 1739
 <211> 423
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (34)

```

<400> 1739
gaattcgcg cgcgctcgac cgcggccgag tcgncccaac acccgactct attggtgcat 60
ttaaaatgtg attccatttt ttcttacaat tcttcaggga acttacctgc attaagtggag 120
gttaaatgca ttcaggaggt tgtttcttct atctagtttt agaataatat ttcttcggca 180
aaccctgcta actgcggttc acccttgaaa acgttaatct gaggactttt tccaccaact 240
cattaatgat ggtggaagca agtgatttat ttgtttcctg gagaatttga tgaagagcag 300
tcttctctct ctgcccttta ctaagcaaaa cctggagcag tttaaataag ctaaatgggt 360
ttgattaaat cttgagctcc gagttggaag gagaaaatga gaagttaacc cctttccctc 420
gag                                     423

```

<210> 1740
 <211> 279
 <212> DNA
 <213> Homo sapiens

```

<400> 1740
gaattcgcg cgcgctcgac cttttgcagt acagcagggg tgctgacac caaggccctt 60
tttcttgccc tggatgaggt gtgattatgt ttgtcccggt tctgtgtat tagacatgga 120
agcctccctt gccacactcc accccaatc ttcctttccc ttccggcagg gactgccctc 180
tccataagac gcttacgttt ggacaatcaa ggtgcacagt tgtaagtgc cacaggcata 240
caccttggac attaatgtgc ataaccactt tgcctcgag                                     279

```

<210> 1741
 <211> 158
 <212> DNA
 <213> Homo sapiens

```

<400> 1741
gaattcgcg cgcgctcgac tttctttaga aagttgtaga ttccagggtt gagattttat 60
tttatttaac ttgatttttg taagcattta gtaactaact gtaaatatcc ctcaagcttt 120
ttcttctgt tttgaaacaa atgcgtttta tactcgag                                     158

```

<210> 1742
 <211> 444
 <212> DNA
 <213> Homo sapiens

```

<400> 1742
gaattcgcg cgcgctcgac caggcaccct tgcacagggt tgcatttctt tagtcttctg 60
tgggtctttt gatgtggggt tgattttgct tttgcttttc tagctgagat ttcccaaggg 120
catctcaga agctctgggt gtgccagagg acccccagaa ctaagaaggg agggcgagt 180
ggtctccatt ccccgagaag ccaggggcag ggtgggatgg ggaagaccag gagcagagtc 240
gagcctcaca gaagccagcg cgggtctctg ctcagcacc cagccggggc tctggacca 300
gggtaacagc ccagttcat cccaaccct ctcagagcct caagaggggt agctcggctg 360
ccggaagaga ggggtgccct atccctggca acccctccac gtacggtacc ccagcacctg 420
ccaccgcctt tgccattttt cgag                                     444

```

<210> 1743
 <211> 225
 <212> DNA
 <213> Homo sapiens

<400> 1743
 gaattcgcgg ccgcgctcgac tgctgctcca ctacagagga aacttcaaga aatgctgggt 60
 tgctacagtg ttttagcttg tgagattctc tgggaccttc cctgctccat catgggggtca 120
 cctctaggtc attttacctg ggacaaatac ctaaaagaaa catgttcagt cccagcgcc 180
 gtccattgct tcaagcagtc ctacacacct ccaagctcac tcgag 225

<210> 1744
 <211> 274
 <212> DNA
 <213> Homo sapiens

<400> 1744
 gaattcgcgg ccgcgctcgac gcaaaatgat ccctgggtcaa gatctgttgc ccaagatggt 60
 acaggtcaca atgaccacat ttgaaattgt tttccctttc attttaccct gtgaaagcat 120
 ctctcctaga gccttgcaag aggcaggtga cattgtgtcc atatttcttc ctgtttcaga 180
 acttctgttt cacaacaatt tctctctcgc tacaagtatt ctttctactca gcaactgggga 240
 agttgggaac agctgggtcac caccatccct cgag 274

<210> 1745
 <211> 276
 <212> DNA
 <213> Homo sapiens

<400> 1745
 gaattcgcgg ccgcgctcgac caggatgcc aactactttc caaatgaag 60
 atgaaaagaa taaagaagta tatatgactc cactcagggg tgtaaaagca acccaagcat 120
 caaagtctac tcagctaaag actaacagag gacagagaaa agtgacagtt tcagctagga 180
 cgaacaggag gtgtcagact gctgaagccg actctgaaag tgatcatgaa gttccagaac 240
 cagaatcaga aatgaagatg agactaccaa ctcgag 276

<210> 1746
 <211> 144
 <212> DNA
 <213> Homo sapiens

<400> 1746
 gaattcgcgg ccgcgctcgac ttttaagttgc catttgggga ataattgcag tatgtgtaga 60
 gactctcttg ggatgcactt atatttttat ttaatgacta cttgttttct agttttgccc 120
 acaacgtctg aaaccacact cgag 144

<210> 1747
 <211> 165
 <212> DNA
 <213> Homo sapiens

<400> 1747
 gaattcgcgg ccgcgctcgac ccacgagtta gcacaagtgt attcaaccaa caaccctca 60
 gaactccgaa acctggtgaa taagcacagt gaaaccttca ctgcgataa caacatgggg 120
 ctggtgaagc aatgcttgtc atctctttat aagaagaatc tcgag 165

<210> 1748
 <211> 212
 <212> DNA
 <213> Homo sapiens

<400> 1748

```

gaattcgcgg ccgcgctcgac cgccttttcct aacaggctac tccttcctgt agagcagaaa 60
ttgtattttg cacgaacatg cagttattga agattaggat caaggataga caaggtagat 120
tagttatctt aaaatataca ctccaaagca gtattatttt aaaatccttt accctggcta 180
ctccccctac ccgggttccc ctcccactcg ag                                     212

```

<210> 1749

<211> 186

<212> DNA

<213> Homo sapiens

<400> 1749

```

gaattcgcgg ccgcgctcgac tggaccccag atgcttgtct tcctgagagt gattggaggt 60
ctccttgctt tggtgtgtgt gttccagatc atctccctgg taatttacct cgtgaagtac 120
acctcagacct tcaccttca tgccaacct gctgtcactt acatctataa ctggggccaaa 180
ctcgag                                     186

```

<210> 1750

<211> 303

<212> DNA

<213> Homo sapiens

<400> 1750

```

gaattcgcgg ccgcgctcgac cacaaaataa tctacaaact tgattctctc ttgttcctgg 60
agtgtacttc ccaccgtcct tttaatcttt agatctaata tcaagcagaa atttctctac 120
aaaccttttc cacatcttcc taagtcaaag ccgcatttta tagattctca tagaaccatg 180
tataggtttg cggcacttgt cctgttaagt gtgaatctaa tcaagggcaa atggtgataa 240
aggcctcaca ttgtgtctct gttttacaac tctagtaatt ttacctgac aaaaacactc 300
gag                                     303

```

<210> 1751

<211> 243

<212> DNA

<213> Homo sapiens

<400> 1751

```

gaattcgcgg ccgcgctcgac gattgaattc tggaccagcc gtgcaaactc ctagaagatg 60
acgggtgtct ttaaaaacgct tcgaaatcac tggagaagaaa ctacagctgg gctctgcctg 120
ctgacctggg gagggcattg gctctatgga aaacactgtg ataacctcct aaggagagca 180
gcctgtcaag aagctcaggt gtttggcaat caactcattc ctcccaatgc acaaatactc 240
gag                                     243

```

<210> 1752

<211> 256

<212> DNA

<213> Homo sapiens

<400> 1752

```

gaattcgcgg ccgcgctcgac cgaagaatt gatggatgat atgaaggcgc tgtgtcttgg 60
cgtgttctcc tacgtgaagg tggcagccag ctccctgctg catggcgggg gccggccggc 120
attgctggca gccggcgtgg ccatccaggt gggctctctg ctgggcgctg ttgctatgtt 180
ccccccgacc agcatctatc acgtgttcca cagcagaaag gactgtgcag acccctgtga 240
cccattgaac ctcgag                                     256

```

<210> 1753

<211> 211

<212> DNA

<213> Homo sapiens

<400> 1753

```

gaattcgcgg cgcgctcgac ctgtatttca gagtaaaatc tcctaaagga aataaaaaa 60
cagagttgta atacacatgc ttgcaaaaac attagtcgtg aaatccctag caacaagtca 120
ctggattttt ctctgtcagc acgcgtgtca gctgcaaag aatagactta atgaagaagt 180
gcccacatgc tggcaggggc cccactcga g                                     211

```

<210> 1754
 <211> 263
 <212> DNA
 <213> Homo sapiens

```

<400> 1754
gaattcgcgg cgcgctcgac atttatttgt tgtattttaa aaatacattg ttgtaagagt 60
gattttttca atatatttta ttcttggggg ggatcatgct acactctcaa aagaaaatta 120
agaaatcatt cagatcatcc ccccttttta agtagtggtg attgcaaac ccaacatatt 180
ttttttactg tcagttgcgg tttatttatt ctttaactgt ctggtttagt agtttaatga 240
ttatgaaaaa tgtatctctc gag                                     263

```

<210> 1755
 <211> 150
 <212> DNA
 <213> Homo sapiens

```

<400> 1755
gaattcgcgg cgcgctcgac ctgatacctg cctcatagag ttatgaggat taagtgtctc 60
ctacctttga atgtcttgct ccggtgttct cctggagata tcttgccaa gtatgaacag 120
cagtgttggc cacaaactca tcagctcgag                                     150

```

<210> 1756
 <211> 257
 <212> DNA
 <213> Homo sapiens

```

<400> 1756
gaattcgcgg cgcgctcgac tccagctcta tttaaaaagt aaagacacc accgactcct 60
gatccccctc tttttctatg gagaacgttg ccttatactc tctacttcag atgatgaaca 120
ctgtgtactg tgtgtgcttt aaagaagttt tatttaattg ctcccttctt cttttccttg 180
ttattcacct ccttgatgcc tgctttcagt tgagggttgg gggcaatgat gagcatatga 240
attttttccc actcgag                                     257

```

<210> 1757
 <211> 237
 <212> DNA
 <213> Homo sapiens

```

<400> 1757
gaattcgcgg cgcgctcgac ggagtcacc gcgcaagcgc atcctggcct ttcttcagtc 60
cccacgtgcg atccttcccg gcaacttttt cgagaaaaat gcccaaattc aaggcggccc 120
gtggggtggg ggggtcaggaa aaacatgccc ccctggccga tcagatcctg gctgggaatg 180
cgggtcgggc gggggtccgg gagaagcggc ggggtcgcgg gacaggtgaa cctcgag 237

```

<210> 1758
 <211> 171
 <212> DNA
 <213> Homo sapiens

```

<400> 1758
gaattcgcgg cgcgctcgac acgaaaacgg atgatcttga gcactatttc atggatggga 60
ggaaaaaatc catTTTTTggg gattgcttac atcgtgttg gatccatctc ctccctcttg 120
ggagttgtac tgctagtaat taatcataaa tatagaaaca gtagtctcga g                                     171

```

<210> 1759
 <211> 585
 <212> DNA
 <213> Homo sapiens

<400> 1759
 gaattcgcgg ccgcgtcgac cagagttttc cgagtgcact tcttgatgct ggctgtttct 60
 ctcaccgttc ccctgcttgg agccatgatg ctgctggaat ctccataga tccacagcct 120
 ctcaagcttca aagaaccccc gctcttgctt ggtgttctgc atccaaatac gaagctgcga 180
 caggcagaaa ggctgtttga aaatcaactt gttggaccgg agtccatagc acatattggg 240
 gatgtgatgt ttactgggac agcagatggc cgggtcgtaa aacttgaaaa tgggtgaaata 300
 gagaccattg cccggttttg ttcgggccct tgcaaaaccc gagatgatga gcctgtgtgt 360
 gggagacccc tgggtatccg tgcaggggcc aatgggactc tctttgtggc cgatgcatac 420
 aagggactat ttgaagtaaa tccttggaac cgtgaagtga aactgctgct gtcctccgag 480
 acaccattg aggggaagaa catgtccttt gtgaatgatc ttacagtcac tcaggatggg 540
 aggaagattt atttcaccga ttctagcagc aaatggcaac tcgag 585

<210> 1760
 <211> 274
 <212> DNA
 <213> Homo sapiens

<400> 1760
 gaattcgcgg ccgcgtcgac tccgcttggg tattegcgatg ggccactttt acatcacact 60
 ctgcatagtg ttctgatga cgtgcaaac cccctatat atggggccctg agtatatcaa 120
 gtacttcaat gataaaacca ttgatgagga actagaacgg gacaagaggg tcacttggat 180
 tgtggagttc tttgccaatt ggtctaata ctgccaatca tttgccccta tctatgctga 240
 cctctccctt aaatacaact gttcagggtc cgag 274

<210> 1761
 <211> 400
 <212> DNA
 <213> Homo sapiens

<400> 1761
 gaattcgcgg ccgcgtcgac gagacatgaa ggttttagcc actagttttg tccttgggag 60
 cctgggggtg gccttctacc tgccttttgt ggtgactaca cctaaaacac tggccatccc 120
 tgagaagctg caagaagctg tggggaaagt tatcatcaat gccacaacct gtactgtcac 180
 ctgtggcctt ggctataagg aggagaccgt ctgtgaggtg ggccctgatg gagtgagaag 240
 gaaatgtcag actcggcgct tagaatgtct gaccaactgg atctgtggga tgctccattt 300
 caccattctc attggcaagg aatttgagct tagctgtctg agttcagaca tcttggagtt 360
 tggacaggaa gctttccggt tcacctgtga ctcaactcgag 400

<210> 1762
 <211> 226
 <212> DNA
 <213> Homo sapiens

<400> 1762
 gaattcgcgg ccgcgtcgac ccaagccctg tgcagttgaa aatctgaata taggccacca 60
 cacctggcct cgtttccttc atagttatat gttacctagt tttttgtttt gttttattta 120
 tttatttgag acagggtctc actctattgc actccagcct gggcaacaag agcaaaactc 180
 agtctcaaat aataataata acaacaactt aatgtgccag ctcgag 226

<210> 1763
 <211> 184
 <212> DNA
 <213> Homo sapiens

<400> 1763

```

gaattcgcg cgcgctcgac gccttcccag caagaaagaa cgatctggga agtcccaccg 60
gcacaaaaag aaaaagaagc acaaaaaatc cagcaaacac aaacgtaaac acaaggctga 120
cacagaagag aaaagctcta aggcagagtc aggggagaaa tctaagaagc gcaagaaact 180
cgag 184

```

<210> 1764

<211> 519

<212> DNA

<213> Homo sapiens

<400> 1764

```

gaattcgcg cgcgctcgac caagatgtgg acagctcttg tgctcatttg gatatttctcc 60
ttgtccttat ctgaaagcca tgcggcatcc aacgatccac gcaactttgt ccctaacaaa 120
atgtggaagg gattagtcaa gaggaatgca tctgtggaaa cagttgataa taaaacgtct 180
gaggatgtaa ccatggcagc agcttctcct gtcacattga ccaaagggac ttcggcagcc 240
cacctcaact ctatggaagt cacaacagag gacacaagca ggacagatgt gagtgaacca 300
gcaacttcag gaggtcgagc tgatgggttg acctccattg ctcccacggc tgtggcctcc 360
agtacgactg cggcctccat tacgactgcg gcctccagta tgactgtggc ctccagtgtc 420
cccacgactg cagcctccag tacaactgtg gcctccattg ctcccacgac tgcagcctcc 480
agtatgactg cggcctccag cactcccatg acactcgag 519

```

<210> 1765

<211> 309

<212> DNA

<213> Homo sapiens

<400> 1765

```

gaattcgcg cgcgctcgac ggaaaatag ctgctttggt tgatattttt caccctggg 60
tggaccctca ttgatggatc tgaaatggaa tgggatttta tgtggcactt gagaaaggta 120
ccccggattg tcagtgaag gactttccat ctccaccagc ccgcatttga ggcagatgct 180
aagatgatgg taaatacagt gtgtggcatc gaatgccaga aagaactccc aactcccagc 240
ctttctgaat tggaggatta tctttcctat gagactgtct ttgagaatgg caccgaacc 300
aagctcgag 309

```

<210> 1766

<211> 201

<212> DNA

<213> Homo sapiens

<400> 1766

```

gaattcgcg cgcgctcgac ggggtttaga aattcattta taactgggtc tctgatgtgg 60
gaaatcctga ttctgtcccg ggttctttgc tacttccttg aaaatactct agcttcatgc 120
tgggtcaagg tggtttacct ggatgacccc cctccccgcg cctcgcccca tcccagggtg 180
gtgccacacc cagtactcga g 201

```

<210> 1767

<211> 205

<212> DNA

<213> Homo sapiens

<400> 1767

```

gaattcgcg cgcgctcgac gtggcgcatc tttatcttgg tttccacgag cagacgctga 60
agccatgatg actttgtgct tgctctcctt ccagttgttt atcctctgct tactccttga 120
cccagtgtct gtgtggtctg ggtcgctccc gaggcagagt cctcgtttgc caagcccagc 180
aggcctcgct ccccgcgac tcgag 205

```

<210> 1768

<211> 215

<212> DNA

<213> Homo sapiens

<220>
 <221> unsure
 <222> (87)

<220>
 <221> unsure
 <222> (103)

<220>
 <221> unsure
 <222> (166)

<400> 1768
 gaattcgcgg ccgcgctcgac tcttgaaaga attttttttcg ttattttttac atctaacaaa 60
 gtaaaaaaat taaaaagagg gtaaganacg attccgggtgg gangatttta acatgcaaaa 120
 tgcccccggg ggttttcttct ttgcttgctt tcttcctcct taccnacc cccactcact 180
 cacacacaca cacacacaca cacacatcgc tcgag 215

<210> 1769
 <211> 167
 <212> DNA
 <213> Homo sapiens

<400> 1769
 gaattcgcgg ccgcgctcgac cccatgtact ggggaagcac agccaactac ctgggctggg 60
 ccacatgcga cgcagcccc acgggacctgc tcctgacggg gctggtggcc ctcacctaca 120
 taatggctct cctatacgaa gagcccttca ccgctgacta tctcgag 167

<210> 1770
 <211> 182
 <212> DNA
 <213> Homo sapiens

<400> 1770
 gaattcgcgg ccgcgctcgac cttatgtttg ccgtttattc ctttcacaga aggcttgga 60
 tgtattttatt tataattttatt ttttcaaaat ccgaaatcat ttgcgagccg caatcgtcgt 120
 ctgcctgtgt ggggggggccc agggcctgcc ttgcacgttg cagcctctct ggccctctcg 180
 ag 182

<210> 1771
 <211> 468
 <212> DNA
 <213> Homo sapiens

<400> 1771
 gaattcgcgg ccgcgctcgac tagcaatcga tgttgctttc ctacccatgt attgtccaga 60
 agatattcga acatctcaaa tagacacact gttgacctcc atgaattaca gctgtgcata 120
 tccacaggac acaactggaa atgaccgatt gccagggtcc agagcgggtg cagggtgatat 180
 tataaaagca gcaactgaac tggatagagt gcatactgct ggatctctgg atatctgtaa 240
 tttgggtaat aataaagtgg aagtctatct gcacaagatt tatagtccag agaatacttc 300
 ttaaaagtta gcaaatgaaa ttattacaga ttatacgagt gtactgcttt aaagatatct 360
 catcattttg ctggtaattt cagtaactgt tttcagcaag aatattacat gagctctaaa 420
 gttattaagc agttttatgt tcgtttttgt tttaggggaag ctctcgag 468

<210> 1772
 <211> 347
 <212> DNA
 <213> Homo sapiens

<400> 1772

```

gaattcgcgg cgcgctcgac tctactcaca taggcctaca tttttactta atatagattt 60
cgccatactt tcccaccagg tctgaagtta accactacag ttcacatttt ctgtttgttt 120
atthttgttt gtttttagag acaggatttt tctctgttac agaggctgga gtgcagtgtc 180
accatcatag ctcaagcaat actcctctct cagtctctag agtagctggg atgacagacg 240
tgcaccacca tgcctggcta atthtttttg tagagatggg gtctctctat gttgcctggg 300
cttgtctcaa actcctggct tccagcaatc tttccacccc tctcgag 347

```

<210> 1773

<211> 294

<212> DNA

<213> Homo sapiens

<400> 1773

```

gaattcgcgg cgcgctcgac ctttcttctc tgatatcttt tggtaaaata tttgttacia 60
taaccaagga gacaactttg agtaaatthc ccattatttt tgaagcctgt tgccccctct 120
gccagggaga aacttcaccg cctgggtcca tatactttca ctaattaaat gagcaccagg 180
ttcttgga aacataattt ttaaatgtca aaaatttggg gacatttagt cttcattttt 240
ggtctctgt gtccagtggc atthtttcta aattatgtcc agcatctcct cgag 294

```

<210> 1774

<211> 267

<212> DNA

<213> Homo sapiens

<400> 1774

```

gaattcgcgg cgcgctcgac gtccctggca ttttaggtgt cggttgggta ggcagtcag 60
gatcaggtaa tgagtttgt tgagccaaat cggcagtttg taaaggactc cattcggtc 120
gttaaaagat gactaaacc tgatagaaaa gaattccaga agattgccat ggcaacagca 180
ataggatttg ctataatggg attcattggc ttctttgtga aattgatcca tattcctatt 240
aataacatca ttgttggtca gctcgag 267

```

<210> 1775

<211> 242

<212> DNA

<213> Homo sapiens

<400> 1775

```

gaattcgcgg cgcgctcgac cttaaagcaa actaagacca gaggaggat tacccttgac 60
ctttgaagac caaaactaaa ctgaaattta aaatgttctt cgggggagaa gggagcttga 120
cttacacttt ggtaataatt tgcttctga cactaaggct gtctgctagt cagaattgcc 180
tcaaaaagag tctagaagat gttgtcattg acatccagtc atctcttctt aaggatctcg 240
ag 242

```

<210> 1776

<211> 243

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (22)

<400> 1776

```

gaattcgcgg cgcgctcgac gnacccatc aaacaccaag aacagatata cccactccta 60
agaacatta taggaatagt tcagattttc ttctgttaaa tgcatccat cagctcacc 120
gattttttcc agcagacctc ctcttctatc ttgtgtgttg ctttatatgt cgctcttgac 180
agctgctact atttatgcat gcatttctat agcaaaacct tgattaactg ggacacgctc 240
gag 243

```

<210> 1777

<211> 208
 <212> DNA
 <213> Homo sapiens

<400> 1777
 gaattcgcgg ccgcgctcgac ctagaatgtg gccaggcaga ataatgacag tgactgtggt 60
 gcttttgtgt tgcagtactg caagcatctg gccctgtctc agccattcag cttcacccag 120
 caggacatgc ccaaacttcg tcggcagatc tacaaggagc tgtgtcactg caaactcact 180
 gtgtgagcct cgtaccccgga ccctcgag 208

<210> 1778
 <211> 219
 <212> DNA
 <213> Homo sapiens

<400> 1778
 gaattcgcgg ccgcgctcgac gtcacacaga tccccacacc cctgtctctg cctgaatctg 60
 tgttggagac tagcttgggg gaccactctt ggctgtgccc actgtccat ccctggccca 120
 ggccagcagc ctccagcact ggggtgggagc tgaagccata tggcattcaa cctcccagat 180
 tccaggctaa ctgcgaaatc ccgtgtggga ggactcgag 219

<210> 1779
 <211> 194
 <212> DNA
 <213> Homo sapiens

<400> 1779
 gaattcgcgg ccgcgctcgac tttatctgct ctgtcatata tttactaatt gtatggctgg 60
 gacaaaaata catgaggaat aaacagccat tctcttgccg ggggatttta gtgggtgata 120
 accttggaact cacactgctg tctctgtata tgtctctgtga gttagtaaca ggagtatggg 180
 aaggcaaact cgag 194

<210> 1780
 <211> 343
 <212> DNA
 <213> Homo sapiens

<400> 1780
 gaattcgcgg ccgcgctcgac cttttgctct ccggaattta agcacggggg cagcacattc 60
 agaaggtttt tctgttcagg aacagtttag tactgggtgga attctgtggt ttctgacct 120
 cactgcaccc gactccactt ggattctgcc tatctctgtt ggcgatca atttgttaat 180
 agtggagatt tgtgctctac aaaaaattgg aatgtctcgt tttcagacgt atattacgta 240
 ctttgtccgt gcaatgtcgg tgttgatgat accaattgct gcaacggtag cctcatcaat 300
 tgttctctac tggttatgct ccagcttcgt gggcggaactc gag 343

<210> 1781
 <211> 337
 <212> DNA
 <213> Homo sapiens

<400> 1781
 gaattcgcgg ccgcgctcgac ctaaagtgcc tttagcaaca gttacagtaa ttgatcaatc 60
 agaaaactaag aagaaggttt ttctgtggag gactgcagca ttttgggcat ttacagtgtt 120
 tcttggagat ataattttac tcacagtcct agctttcaga atgctctcct tgaaatttct 180
 cgtctgttcc ttttttctga agaacatgca tcctgaatgt tggatcatga aaagtcttga 240
 atgctgtact agctcttctt ggctaggcag tggggaacca ctgtttttta atgttgttat 300
 tcatgaggac caatggattg gcgtgacagt actcgag 337

<210> 1782
 <211> 266

<212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (89)

<220>
 <221> unsure
 <222> (132)

<400> 1782
 gaattcgcgg ccgcgctcgac atgcttttgt ctccacagca accagccact gcaggcagca 60
 tgtcttttct cccctgctct ctgcttgcng ttgttttgac gctattctgc ttgcatgtct 120
 tctggttggg angtgaggtt gttgctggac tctcaggcga agctgaagtc attgaagtgt 180
 gtgaagctct gtgcttgcat gagggcaagc aaggaatggc tgtgcctgag gctgctctgg 240
 gaaactcctt gcccttaac ctcgag 266

<210> 1783
 <211> 382
 <212> DNA
 <213> Homo sapiens

<400> 1783
 gaattcgcgg ccgcgctcgac gtaatgtcaa catgatgttt cgctcagatc gaatgtggag 60
 ctgccattgg aaatggaagc ccagtcctct cctgttctta ttgctttat atatcatgtg 120
 tgttcctcac tcagcagtgt ggggatgtgc caactgccga gtggttttgt ccaacccttc 180
 tgggaccttt acttctccat gctaccctaa cgactacca aacagccagg cttgcatgtg 240
 gacgctccga gccccaccg gttatatcat tcagataaca tttaacgact ttgacattga 300
 agaagctccc aattgcattt atgactcatt atcccttgat aatggagaga gccagactaa 360
 attttgtgaa gcaaccctcg ag 382

<210> 1784
 <211> 202
 <212> DNA
 <213> Homo sapiens

<400> 1784
 gaattcgcgg ccgcgctcgac cctaaaccgt ctattttttt ctagtgaatg tattttaacc 60
 acagtgtcct aaactgagaa aactagagag gaaaaagtgg gtgttcata actttgtagt 120
 tgggagagtg gttttacatg tctgtgtatt catgactttg ggagtgggta ggatcattgg 180
 agagagaact gcacagctcg ag 202

<210> 1785
 <211> 224
 <212> DNA
 <213> Homo sapiens

<400> 1785
 gaattcgcgg ccgcgctcgac ctgaaacaca aggaaagcta gaagaaaaac ttcaggagtt 60
 ggaagcgaat cccccaagtg atgtatatct ctcatcaaga gacagacaaa tacttgattg 120
 gcattttgca aatcttgaat ttgctaatac cacacctctc tcaactctct cccttaagca 180
 ctgggatcag gatgatgact ttgagttcac tgggcagact cgag 224

<210> 1786
 <211> 221
 <212> DNA
 <213> Homo sapiens

<220>

<221> unsure

<222> (91)

<400> 1786

```
gaattcgcg cgcgctcgac attctttgtc attatataag gcccctgttt gtctttatct 60
gtacgattgt tagtttaaag tccattttat ntgataggag aatggctatt cctgctcact 120
tttgtttcc attatttttt ttccacactt ttactttgta tctgaatgtg acttttagcca 180
gtaggagagt gtcttgtaga gagcaagtgg tcggctctga g 221
```

<210> 1787

<211> 181

<212> DNA

<213> Homo sapiens

<400> 1787

```
gaattcgcg cgcgctcgac ggacaattgc aacgactcca acaaaaccag ttcaaggctt 60
aggaactgtg tctcttagtt tcaagaaaat gaattggatt ttatttggtat tatgtgtgag 120
tatgattaca gatcaagaca cacaccctta tacacacca cccccccca cacaactcga 180
g 181
```

<210> 1788

<211> 207

<212> DNA

<213> Homo sapiens

<400> 1788

```
gaattcgcg cgcgctcgac ctctctttaa aaaacagtat ctagggtaaa tatactctaa 60
cctcttccca ggcaagtaga aaaaaggcag tctggagtca aacagtgagt tcagtttcca 120
gctaggacct tgtggcaacc ttatataaca tctgtaaacc atagtctctc cttattttaa 180
atgaggataa tcgcaactcg cctcgag 207
```

<210> 1789

<211> 160

<212> DNA

<213> Homo sapiens

<400> 1789

```
gaattcgcg cgcgctcgac gtcttagttt gattggcttg tctttgaaaa tgtctccaaa 60
gccactccc ttaactttct tgggctggat tgctgcagtt gccactgtcc cggtggcacc 120
ttcagacttg gtgctgcttg agtcaccccc aacactcgag 160
```

<210> 1790

<211> 191

<212> DNA

<213> Homo sapiens

<400> 1790

```
gaattcgcg cgcgctcgac agaacacaga ttttttagcaa aaggctatct ggtgagttaa 60
ttggctgttt tgttctatct tgctctaact ggctcagttat tcctagctag tctatgtatt 120
tacttatata tgctgtcttt ttgtactgtg ctgaagcttt atgtagcaag caacttagcc 180
gacaactcga g 191
```

<210> 1791

<211> 167

<212> DNA

<213> Homo sapiens

<400> 1791

```
gaattcgcg cgcgctcgac ctgccttaat tagaaagtct gccacttcca gaaagcctcc 60
acagcaagcc agagtcaagg cagtttcttg agtttcttct gtctgtgcat tgatatttgc 120
```

tccttgacca agaagtaatg ccaccatttc ttcattgtcct tctcgag 167

<210> 1792

<211> 213

<212> DNA

<213> Homo sapiens

<400> 1792

gaattcgcgg cgcgctcgac aaataataaa gatcagaaca gagacaagtt agaaagaaaa 60
accatagggg aaaaaagtca gtaaaactaa gacttcaatt tttgaaacaa agaattgatt 120
tttgaaaaat aaaatcaaca aactcttgga ctaagaaaga ggacaaaatc agaatgaaa 180
atggagaata tattacaaca ggtactcctc gag 213

<210> 1793

<211> 227

<212> DNA

<213> Homo sapiens

<400> 1793

gaattcgcgg cgcgctcgac cttgattgga aagttttctg aaacaaagag acttactaat 60
tttttttggt gttctatttg attcttgcat ctttggtcca cattttctct ctttgtttct 120
ctctgtggct gttttatttt tactttgata tgcttttact tctttcttat gttgttttct 180
gtatctatac aggcataatc tttgtggtac gtgggggatg cctcgag 227

<210> 1794

<211> 198

<212> DNA

<213> Homo sapiens

<400> 1794

gaattcgcgg cgcgctcgac agactctcaa atataaaata tttgctacag tgtatatatg 60
gtacataatt gcttggttgc tttaaagttc cttctgttgt tctgcttccc actgatttca 120
taccagctca tgaatggatc attacagtct ctccagaggc ttagaatgat tcagaatggt 180
caatgcacag atctcgag 198

<210> 1795

<211> 245

<212> DNA

<213> Homo sapiens

<400> 1795

gaattcgcgg cgcgctcgac gggaaatctt tttttttccc ctagtaatag tttgataaga 60
aatttagtgt attgactgcc tcagtgcacac aatttatctt taaagggtgt gaagctggtg 120
gggaccaaatt gttacctgtg tttttgctgt tgattgctat tttcagaagc aaaccatggt 180
tttcaattac agtaggagtc aacaaatttg ggattttaga agggggagga gggagcggac 240
tcgag 245

<210> 1796

<211> 281

<212> DNA

<213> Homo sapiens

<400> 1796

gaattcgcgg cgcgctcgac ctatttatgg gtaaaatctg taaaactggg tcagtttttt 60
ggacaatgtg ctgctgctta tcctatttct atatgggtctc tgcttggggt ggttatgtat 120
ttatcatcaa tcttattcca ctgcatgtat ttgtgtgtt actgatgcag agatacagca 180
aaagagtcta catagcatat agcactttct acattgtggg ttaaatatta tcaatgcaga 240
taccttttgt gggattccag ccaatcagaa cacatctcga g 281

<210> 1797

<211> 240

<212> DNA

<213> Homo sapiens

<400> 1797

```
gaattcgcg cgcgctcgac tgaaaaatcc attctcttgg tgtcactacc agtctgctta 60
gttttaagtg aaattccttt tatgtctact tggtttttac ttgtgtcaac atttagtatg 120
ctacctcttc tattgaagga tgaactccta atgccctctg ttgtgacaac aatggcattt 180
tttatagctt gtgtaacttc cttttcaata tttgaaaaga cttctgaaga agaactcgag 240
```

<210> 1798

<211> 281

<212> DNA

<213> Homo sapiens

<400> 1798

```
gaattcgcg cgcgctcgac ccttttattt catctgtatt taaacctctc tattccctgc 60
cataacatct tttgccacgt atagctggaa ttaagtgttg tcttgagctt gttgtacatt 120
taagaataaa cttttgtaaa aaaagaaaaa tcttacagtg gctcatcctc tctttagttg 180
ttttcactaa gtcgttccta ccataactgt gaatttaaag taaaaccagc tcagaatctt 240
gccagagtct gttcttttgt ccttggttcta cccatctcga g 281
```

<210> 1799

<211> 209

<212> DNA

<213> Homo sapiens

<400> 1799

```
gaattcgcg cgcgctcgac gtgtatactt aatagaggta attttttctt cccctagtta 60
tttctttccc attgaatcaa gttacatata agtttctaac cattcctggt ataggctttg 120
gtgattgact tcattttaat aatcttttta tttcattgcc tttcaccagc ttttttaaac 180
tcatgaaaatt ccacacccca cttctcgag 209
```

<210> 1800

<211> 202

<212> DNA

<213> Homo sapiens

<400> 1800

```
gaattcgcg cgcgctcgac gcaatactta agagtagttt ggggtttattg aagatttttt 60
gctaggagag agaaaaatctt ttgctaggag aggtttcaag gtaagagtat atactttaaa 120
catgtatata aatgtttttg ctacttttct gtcactacct ttcttacctt gtcctttaca 180
tggatatagg aagaaactcg ag 202
```

<210> 1801

<211> 131

<212> DNA

<213> Homo sapiens

<400> 1801

```
gaattcgcg cgcgctcgac cgaggccaac acacagaaat taaaagtaga aacaaaatga 60
gggcacactt gtcctgtgcc ttggcttgge ccctccaacc tccaaaagaa ctgtcctccc 120
cattcctcga g 131
```

<210> 1802

<211> 265

<212> DNA

<213> Homo sapiens

<400> 1802

```

gaattcgcgg ccgcgtcgac atttatctgt gaatggcagt cccactcaac tataaactat 60
ctgtatctta acaccagaa caaatctagg cactcagttg gcttctcagt gggtttttgt 120
ttgaatcccc tgctctctga tgtatttgca ctattttgct ttattattta acttcttact 180
tatgtttttt gtctctgcag tagtatcact gcaggagagt gaagagttgg taagaaagtt 240
tcatcattta caggtgattc tcgag                                     265

```

<210> 1803

<211> 271

<212> DNA

<213> Homo sapiens

<400> 1803

```

gaattcgcgg ccgcgtcgac ggacaaggca ggggtaggca cactggtaag cttaggattg 60
aatagtttga gtaattttgt tggctctctg gatctagggg ggattcgtaa ttgtctagtt 120
agggcagggg aatattgaat tgggtgtatga gagtttggtt aaggagatag ttgggagtat 180
gggctctgga ttgggttggt tgtatatgaa aggcattgct gcagtggagt ttatcatcta 240
tgcattagct tgccctggga ggggcctcga g                                     271

```

<210> 1804

<211> 180

<212> DNA

<213> Homo sapiens

<400> 1804

```

gaattcgcgg ccgcgtcgac gtatttttaa attttgaat ttaataacta cttttgaatg 60
aaaacattac ctttaactct ttttttttcc tttcttaggc ttgaaaagga atacactaca 120
ataaaaaacga aagaaatgga agagcaagtt gaaattaaag taagcagtcg ggggctcgag 180

```

<210> 1805

<211> 195

<212> DNA

<213> Homo sapiens

<400> 1805

```

gaattcgcgg ccgcgtcgac gattagagta ataattttgt catttaaaaa cacagtgtgt 60
tatactgccc atcctaggat gctcaccttc caagattcaa cgtgggctaaa acatcttctg 120
gtaaattgtg cgtccatatt cattttgtca gtagccagga gaaatgggga tgggggaaat 180
acgacttcac tcgag                                     195

```

<210> 1806

<211> 303

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (271)

<400> 1806

```

gaattcgcgg ccgcgtcgac ctcggaactt cttcacaatg agaaacctga aagggtcccag 60
cagccagcaa tgaatgaaag gtgggggtgg gccgctggca gggcgaggcc ttgtgagcca 120
tgtgcctgtg ctctcaagtc cgaagtttgt ggggatgcat gcaggagatt ctggccctga 180
ttgtttcccc agaaccagga tgcgttctgt ttggcaggac aactggcctt cacttggttg 240
ccttcagtgg gtgttctcat tggttgcctt ngtttagtgc cctcagttgt atctcttctc 300
gag                                     303

```

<210> 1807

<211> 191

<212> DNA

<213> Homo sapiens

<400> 1807

```

gaattcgcg cgcgctcgac caatttctga agaagaccaa aaagaaccac aagacgatga 60
atgaaaaggc atggaagcgt tgggtgcacac aaatcctctc tgccctaagc tacctgcact 120
cctgtgaccc ccccatcatc catgggaacc tgacctgtga caccatcttc atccagaaca 180
acggactcga g                                     191

```

<210> 1808

<211> 282

<212> DNA

<213> Homo sapiens

<400> 1808

```

gaattcgcg cgcgctcgac ataaaaggaa gattaacaaa gttaccctgg aacaatagct 60
tacttatcca aatctcaaca ttacattttt aacagttttg tatgtttcaa agttgaaact 120
actgtaagag aaagccaata ctatttatat ctgaatcaac agtagcataa acatttttta 180
attgagattg tattttaatc ccttttggtt aagtacatta acaacagttt ttcacaggat 240
atgaacttgg cgaaattagt tcttaatctg aatatactcg ag                                     282

```

<210> 1809

<211> 269

<212> DNA

<213> Homo sapiens

<400> 1809

```

gaattcgcg cgcgctcgac atggagatac ctagtatgga tcggagagag ctgtttttcc 60
gagatattga gcgtggtgat atagtgattg gaagaattag ttctattcgg gaattcgggt 120
ttttcatggt gttgatctgt ttaggaagtg gtatcatgag agatatagcc cacttagaaa 180
tcacagctct ttgtccctta agagatgtgc cttctcacag taaccatggg gatcctttat 240
catattacca aactggtgac ttactcgag                                     269

```

<210> 1810

<211> 218

<212> DNA

<213> Homo sapiens

<400> 1810

```

gaattcgcg cgcgctcgac cagttttttg taagactctg tggatttggt ggaggaatct 60
tttcaacaac aggcattgta catggaattg gaaaatttat agttgaaata atttgctgtc 120
gtttcagact tggatcctat aaacctgtca attctgttcc ttttgaggat ggccacacag 180
acaaccactt acctctttta gaaaataata cactcgag                                     218

```

<210> 1811

<211> 250

<212> DNA

<213> Homo sapiens

<400> 1811

```

gaattcgcg cgcgctcgac tgagaattgg caaactaatg ttgtttgggt ctatcttccg 60
ctgtttggat cctgctctca ccattgctgc cagtttggtt ttttaagtcgc cgtttgtatc 120
tccctgggat aaaaaagaag aagctaacca gaaaaagctg gaatttgcat tcgcaaacag 180
tgattatctg gcccttctac aagcgtataa gggatggcag ctaagtacaa aagaaggcgt 240
gcttctcgag                                     250

```

<210> 1812

<211> 246

<212> DNA

<213> Homo sapiens

<400> 1812

```

gaattcgcg cgcgctcgac ggggaaaaca tcattactga tattttaaac ggatgtttta 60

```

```

ctttccatca acatgaacct caacttgata tgatgcagat tgaaggaaat caccataat 120
tccacattaa gaaggcctgt gatattttat gggaaaataa atagagaaaa tgctaacaga 180
aacccattata agcattaagc tttatggagc aaagacaaat ccagtgggtga aagatacaca 240
ctcgag 246

```

```

<210> 1813
<211> 196
<212> DNA
<213> Homo sapiens

```

```

<400> 1813
gaattcgagg ccgcgtcgac cttcaccttc caccatgatt gtaagtttcc tgaggcctcc 60
ccagggtgtgc ttcctgtaca gcctgtggaa tggtaacaaa gacgttgga gaggtggcta 120
tggacatcac ctgggagaag tggaaagcaa tggacactgt tcagaagtcc atatacagaa 180
acatgttga ctcgag 196

```

```

<210> 1814
<211> 264
<212> DNA
<213> Homo sapiens

```

```

<400> 1814
gaattcgagg ccgcgtcgac acagatttga gcaaatacaa ttaagggtgc ttattttttg 60
catcaagtaa ttattgtctgt ggtctttcta ctccacaaaa taattttttc tttttgcagt 120
tgaaaattaa ctgcattatt aactaattaa taaaataaat caagtgggtat aagggtattag 180
tttaccctca agccgatgac tccatggcta ctgatattag ttagtttagg atttttaaaa 240
agcatatcag accccaact cgag 264

```

```

<210> 1815
<211> 301
<212> DNA
<213> Homo sapiens

```

```

<400> 1815
gaattcgagg ccgcgtcgac taatttttct gccactactc agtactgtgt gggccagga 60
tcaccattag ggaagacaga gtagctcaga aatcagtagt gaggaggagg acagcacttt 120
gtgtggtatc ttgctctagg agcattttca agccatcaga agtgggactc ttgaagacta 180
tttctgactt tctcagcaca aattaagata ataggagatg gaggtccat ttgaaaaaca 240
ttttggttgt ataattggtta gcataaaaca tacttttttc aagttaactc aggcactcga 300
g 301

```

```

<210> 1816
<211> 214
<212> DNA
<213> Homo sapiens

```

```

<400> 1816
gaattcgagg ccgcgtcgac gataattaaa gactccactt ccaagaaagg atacaacaag 60
gaaaataaga ggttggttaa taaaaattat gccaaagata agcctgtaga aagcttctgt 120
ggtgcgtatt tggtagattt tatggatgga tttcgtgaag gataaatagc agagtcctga 180
ggggggaaaa aaggatagaa gggccaaact cgag 214

```

```

<210> 1817
<211> 226
<212> DNA
<213> Homo sapiens

```

```

<400> 1817
gaattcgagg ccgcgtcgac gcacttccta gctattttcta ctacctttcg tcttcatgat 60
tttcttactt ctatggctgt ttccgcacct tgaggttttt cttccttctt atattcattc 120

```

tcccacaagt ttaatttatg ctatgtgtgg cttaaagtat tacctaaatg ttgtcaattc 180
gtcccccatc acccccgcaa atcatcctct ctacttacaa ctcgag 226

<210> 1818
<211> 248
<212> DNA
<213> Homo sapiens

<400> 1818
gaattcgcg cgcgctcgac cttcaggaac ctgtcacatt tttccatctg gtacctccac 60
cctattctga gtatcctccc ctttccaccc caacatagta tctttcaaag aatcccttgc 120
ataggagact gtaaccgaaa gtgttagctt ttcaccaggc tatttacact ttacgcctta 180
gttctaattg tggaaggaaa aacttttccc ttgtcaaagt aatgttatgg cttcagagaa 240
cactcgag 248

<210> 1819
<211> 165
<212> DNA
<213> Homo sapiens

<400> 1819
gaattcgcg cgcgctcgac ctgtatttcc attttgcatt atattgacgt gtttttttga 60
aggaaaaaaa gtaataaaaa tctgatagtc taagactcca ctatttaaaa gcctaattac 120
tttaaaaata tgcatacttt cagaactttt accaaaacac tcgag 165

<210> 1820
<211> 233
<212> DNA
<213> Homo sapiens

<400> 1820
gaattcgcg cgcgctcgac ctttttgctt tgctcatttt aatttttttg ttgaagatta 60
acagttctgt tgttctggct actgttgccct ggaagaaatc acacatgaac aaactcacct 120
tctgcattat actgacatca ttatatttgc caattgattg tgagctaatt ggggttatag 180
aaacgtgcta tagcataaca gactgtaatt atttctctct aggcgttctc gag 233

<210> 1821
<211> 267
<212> DNA
<213> Homo sapiens

<400> 1821
gaattcgcg cgcgctcgac ttttgattct gaaaattggg ggaaaaaact tttaatcaca 60
attttcttca atacaagggg aaaatattct tgccgatttc caacgttttg tgatatgagc 120
agaaaatcat tagcatttcc catcatttgt tcatatttgt gttttctgac agttgccact 180
tgtagcattg cctgtactac agtatttttt gccaacctca ggcatactcg ttacatctgt 240
attgaacttt cggccctaaa actcgag 267

<210> 1822
<211> 248
<212> DNA
<213> Homo sapiens

<400> 1822
gaattcgcg cgcgctcgac cctaaaccgt cgattgaatt ctagacctgc ctctggtttg 60
ccggacttgt ctttctgcac ctgatgggtc agctctgcaa ggatcgattt gaatatcttt 120
ccttctcgcc caccacgccg atgagcagcc acggctcgagt cctgtccctg ttggttgcca 180
tgctgcttct ctgctgtgga ctggcgcccg tctgctccat caccggctac acccacgaaa 240
tgctcgag 248

<210> 1823

<211> 282

<212> DNA

<213> Homo sapiens

<400> 1823

```

gaattcgcgg ccgcgtcgac acttgcccac ccagcctcct gctctagaca ctccctgtcc 60
aggccatctt gcactgcctg gttaatcatt cagaaatatt gtaccaattc tactctttcc 120
ctccttcagt gacttactat tgtctgcaga atgaagtata agttccttat tcaaggactc 180
atatgcagga actttccaga attgtcctct tcctatttcc ctagtgccat tgacatcggt 240
actttgcata agtgcctacc accctttccg atacatctcg ag 282

```

<210> 1824

<211> 277

<212> DNA

<213> Homo sapiens

<400> 1824

```

gaattcgcgg ccgcgtcgac tttttgtaac acttttttgt atttttgcca tttgaaaagg 60
ttgtggtgta gttggtctgt aattaagttg cagatttaaa actgctgta gctttgtaaa 120
tcaaaatata ggtgtttttt gtcctgggtat atcgctattc catctgcagc tggagctgga 180
atcccatgta tcttctagct accattcatt ttcttcactg ttcacaaaag aagagtgtga 240
aattcagtga atgctgttac taatcctgtt actcgag 277

```

<210> 1825

<211> 218

<212> DNA

<213> Homo sapiens

<400> 1825

```

gaattcgcgg ccgcgtcgac cagagtaaga gcccattctca aaaaaaaaaa caaaacaaaa 60
acaaaaaaag ggtaaggact ttggtggggg atcatatgat ttggaacata gatttttttag 120
tttttgtttt tttttgtggt cttcaagaga gcagttcaga gaccagggtg catggtggtt 180
tactgagtgg gttggaagaa tatggaagca cgctcgag 218

```

<210> 1826

<211> 195

<212> DNA

<213> Homo sapiens

<400> 1826

```

gaattcgcgg ccgcgtcgac tgcataatgtt aggagtggaa acaatctgga aaacattttt 60
ttttcatcca aaaagtattc tccttgggca tatctgatgg aaaaaaacct tgatttttatt 120
ttcgtatctt tagtctgtgt tctttctagt tatttgggtac taattatgtg caatctaaaa 180
acacccccac tcgag 195

```

<210> 1827

<211> 196

<212> DNA

<213> Homo sapiens

<400> 1827

```

gaattcgcgg ccgcgtcgac ggttctttcc attcctattc cctccttaac catttctcta 60
cccagaatca gtctgttaac agtttaatgg cattgcttca ttttaaaaaa tgattgcatt 120
gtatttcatt ttatggatgt gccaaaattt acataattgt tattctgttg atgaaagttt 180
aggatgtcac ctcgag 196

```

<210> 1828

<211> 205

<212> DNA

<213> Homo sapiens

<400> 1828

```
gaattcgcgg ccgcgtcgac gatactccct cattcatgaa aaaatgcgtt tatttttagt 60
agtgcctttgg attctgtgtt ttgtttgttc ttgggttttg ttctagaag agtcctgttg 120
gaagctctgt ttccagaatg ctggattggc tgtgggtggg tccataacct actgcctgta 180
tcaaactcat actccaagac tcgag                                     205
```

<210> 1829

<211> 250

<212> DNA

<213> Homo sapiens

<400> 1829

```
gaattcgcgg ccgcgtcgac caggcttggg gactctactt gctcaccaga tgatcctaca 60
cctgccacct ccgatggatc cactgcctct gtgcctgcct gtactgctga tgetccagt 120
gataactcag catcccagcc taggccaat gccactgaag atggacctgc accctgggga 180
cccaggagtc ctaccactca gctgtcccca ggagtgccca gacctcatt cttatccagg 240
acttctcgag                                     250
```

<210> 1830

<211> 262

<212> DNA

<213> Homo sapiens

<400> 1830

```
gaattcgcgg ccgcgtcgac ccgaggttgg accctactgt gacacaccta ccatgcggac 60
actcttcaac ctctctctggc ttgccctggc ctgcagccct gtccacacta cctgtcaaa 120
gtcagatgcc aaaaaagccg cctcaaagac gctgctggag aagagtcagt ttccagataa 180
gccggtgcaa gaccgggggt tgggtggtag ggacctcaaa gctgagagtg tggttcttga 240
gcacgcgagc tactggctcg ag                                     262
```

<210> 1831

<211> 215

<212> DNA

<213> Homo sapiens

<400> 1831

```
gaattcgcgg ccgcgtcgac cccaaggtaa tgctttcttc catttcatca ggttctttta 60
tccccactgc accccctccc ctctccctt gcctatcttg atggcttctc agaagctcgg 120
ccctagtctt ccttgccttg gcggggccag agccactac tgctgaggca gcactgctct 180
cgtcagctgt gttgccttta ccaagtgcct tcgag                                     215
```

<210> 1832

<211> 173

<212> DNA

<213> Homo sapiens

<400> 1832

```
gaattcgcgg ccgcgtcgac cagaaaacct ggacagttcg cttctacaca agaattttat 60
atgtatttat gaagatgatt ctgtacccta gtatatcttt ttgggcatgg actaatttgt 120
atctgtttta ctcatattct gcacgatctg tatatagtac atcagaactc gag       173
```

<210> 1833

<211> 204

<212> DNA

<213> Homo sapiens

<400> 1833

```
gaattcgcgg ccgcgtcgac agaacggccc ctgcccaaca tcttcaacct gtacaccatc 60
```

ctcaccgtca tgcctcagtt ctttgtgcac ttcttgagcc ttgtctacct gtaccgtgag 120
 gccagggccc ggagccccga gaagcaggag cagttcgtgg acttgtagaa ggagtttgag 180
 ccaagcctgg tcaacagcac cgtc 204

<210> 1834
 <211> 187
 <212> DNA
 <213> Homo sapiens

<400> 1834
 gaattcgcgg ccgcgtcgac cctagatata aggaaaatag tagaagcttg taaagccaaa 60
 actgatgctg gcggtgaaga tgcctttttg caaaccagaa cttatgacct ttacatcact 120
 tatgataaat attaccagac tccacgatta tggttgtttg gctatgatga gcaacgacag 180
 tctcgag 187

<210> 1835
 <211> 137
 <212> DNA
 <213> Homo sapiens

<400> 1835
 gaattcgcgg ccgcgtcgac ctatcctgcc tgcctttatc tgccttgccc tgcgattatt 60
 tggcttttga agcataagct acgtaagaca taccacacct aagaaactaa acagcaatga 120
 aaaccatata gctcgag 137

<210> 1836
 <211> 235
 <212> DNA
 <213> Homo sapiens

<400> 1836
 gaattcgcgg ccgcgtcgac gttggtgtta atttctgatt aacccttgaa ttaccgtct 60
 tctcatcttc tgtacaaaag cctcaagtga gggtaaatt caacattatc ctgatctaga 120
 cagcccccat tctcaatcca cccttttcca agttgattgc ccaaggactt ctaacaataa 180
 actctctttt gcaccacaga cttctttgaa aatatacatg ctgttgacct gcacg 235

<210> 1837
 <211> 153
 <212> DNA
 <213> Homo sapiens

<400> 1837
 gaattcgcgg ccgcgtcgac tgttgataaa atgaaactag tggaaatctt gtgtcaagta 60
 ttacagtctg ctgggttttt cagcattgac caggaagaag atgttgactt cctggccaga 120
 ttttctaagt tggtaaatgg aacgggactc gag 153

<210> 1838
 <211> 196
 <212> DNA
 <213> Homo sapiens

<400> 1838
 gaattcgcgg ccgcgtcgac ccatgaagag aagtttacag gccctctatt gccaaactgtt 60
 aagtttcttg ctgatcttgg cactgaccga agcgtggca ttgcatcc aggaaccatc 120
 tcccaggga tctcttcagg tctctcttc aggcactccc ccgggaacca tggtagacgc 180
 accccacagg ctcgag 196

<210> 1839
 <211> 292
 <212> DNA

<213> Homo sapiens

<400> 1839

```
gaattcggcc aaagaggcct actttctcca gaagtcaaga aagcgggtcag cgacgggtgtg 60
attctcaaac atgatatgtt ccacatgcct gtacttctgt ctgttcagcg tgatggcgct 120
cggctggcac ttagtacaga tgccattcgg ccacgggagg tgccctcgc accctgactt 180
aatcttcgag ctgatgttct ccagggaac aaacttcccc ctacttgta gccctccag 240
tcagcttcg gatgtaggcg tggaaggaca tgtgcttcac gggaggctcg ag 292
```

<210> 1840

<211> 312

<212> DNA

<213> Homo sapiens

<400> 1840

```
gaattcggcc aaagaggcct attgaactac tggctgacca tgtttcgaat caggtacatc 60
caccggccct gcctgcaggt gatcgaggcc atgctgggtg ccgccgtcac ggccacagtt 120
gccttcgtgc tgatctactc gtcgcggtg tgccagcccc tgcagggggg ctccatgtcc 180
taccgctgc agctcttttg tgcagatggc gagtacaact ccatggctgc ggccttcttc 240
aacaccccg agaagagcgt ggtgagcctc tccacgacc cgccaggctc ctacaacccc 300
ccaaccctcg ag 312
```

<210> 1841

<211> 249

<212> DNA

<213> Homo sapiens

<400> 1841

```
gtcaggatgc agatgtctcc agccctcacc tgccagtcc tgggcctggc ccttgtcttt 60
ggtgaagggt ctgctgtgca ccacccccca tctacgtgg ccacactggc ctcagacttc 120
gggttgaggg tgtttcagca ggtggcgag gcctccaagg accgcaacgt ggttttctca 180
ccctatggg tggcctcggt gttggccatg ctccagctga caacaggagg agaaacccag 240
caactcgag 249
```

<210> 1842

<211> 779

<212> DNA

<213> Homo sapiens

<400> 1842

```
gaattcggcg ccgctcgac gtcttgacc agtattcaat gtggggaaat aaatttgag 60
tattgctttt tctgtattct gtattactga caaagggcat tgaaaacata aaaaacgaaa 120
ttgaagatgc aagtgaaccc ttgatagatc ctgtatatgg acatggcagc caaagttaa 180
ttaatctcct gctgacggga catgctgttt ctaatgtatg ggatgggtgat agagagtgtc 240
caggaatgaa acttcttggt atacatgaac aagcagcagt aggattttta acactaatgg 300
aagctttaag atactgtaag gttggttctt acttgaaatc tccaaaattc cctatttgga 360
ttgttggcag tgagactcac ctcaccgtat tttttgcaa ggatatggct ttagttgccc 420
ctgaagctcc ttcagaacaa gccagaagag tttttcaaac ctacgaccca gaagataatg 480
gattcatacc cgattcactt ctggaagatg tgatgaaagc attggacctt gtttcagatc 540
ctgaatatat aaatctcatg aagaataaat tagatccaga aggattagga atcatattat 600
tgggccatt tcttcaagaa tttttcctg atcagggctc cagtgggtcca gaatctttta 660
ctgtctacca ctacaatgga ttgaagcagt caaattataa tgaaaaggtc atgtacgtag 720
aagggaactgc agttgtgatg ggttttgaag atcccatgct acagacagag acactcgag 779
```

<210> 1843

<211> 407

<212> DNA

<213> Homo sapiens

<400> 1843

```

ggccccctatt gcgtggctgc tgggtgtgtgg ggctcagttcc agcagatgaa tgtgtcatgt 60
ggcacacctt gtccccctccc gcagcatttc ctgggtccccc ccagaccctt gagcgtcttt 120
tgggaccagc aaggagtcct tgcacaggga aggccttgagg tgagaagccg cttcccagac 180
tgtcagggcc aggcctgggt ctagaattct tgctgtgtgt ttgcagagtc aacagcccat 240
cagccccatgt tttagagggg acacttttgt cctcgggttc caccctcagc aagcaggcct 300
ccagcccagc gaaggcctct gccgtagtga cgttgccgtg tggggctgcg tggctgttcc 360
ccttggctgg agcattcagc caaccccagc gtcccccta cctcgag 407

```

<210> 1844

<211> 369

<212> DNA

<213> Homo sapiens

<400> 1844

```

gaattcgcgg ccgcgtcgac ggagacgcgg ccccgtagcc gaggcaccct tcagcaaccc 60
gggggcagcg ttttccccct accggaatc tgatgggctt atgacatcat ggctggctgc 120
tgagcgatga agtggatgcc acaaagaaat ccgacatata agatagattc tgaaatcggg 180
ttccctccag ctgtagtaac aggcgtgaag tcaggagaat ttgagctttg tttaaaaaat 240
aaataaataa ataaataaac cataacaaag tcttgccctg tattaatgc aattttctta 300
aaaacaagca aaccttttgg acatcatttt attttaatag aaatgctgag ttttatgaaa 360
ctactcgag 369

```

<210> 1845

<211> 213

<212> DNA

<213> Homo sapiens

<400> 1845

```

gaattcgcgg ccgcgtcgac aagaagctta agcgcattct tgtggctact aactcacctg 60
acagctttgc atttgagtga caattccctg tcccgaattc cttcagacat tgccaagctt 120
cacaatctgg tgtatttgga cctgtcatct aataaaattc gtagcttacc cgcagaactc 180
ggaaacatgg taccactcag ggcgtccttc gag 213

```

<210> 1846

<211> 341

<212> DNA

<213> Homo sapiens

<400> 1846

```

gaattcgcgg ccgcgtcgac ccagtatctg ttttggagtc gtctttcatt tttaacgttg 60
tttctacagg gtatttgca ggtcttcttc ttttctttt aataattatt ggctgatctt 120
cctcctgaga ttttatgggt tcatcatcgt tctgtcttgg cttttacca gtagtttcac 180
tgctgtata ttcattcttt tcttccatga cccttgaggt agtgcatttt gtctcagaac 240
tgggtttagg taattcttcc aaatctctgg agttctcttc ctttgtgtca tgtggctccg 300
gattgaattc tagacctgcc tccagtaaca aggacctcga g 341

```

<210> 1847

<211> 110

<212> DNA

<213> Homo sapiens

<400> 1847

```

gaattcgcgg ccgcgtcgac gcttcgggga tacacacgct ggcaactcta taggacagtc 60
ttatttgata tagcataagt atgtttttta gaattcatgt tatcctcgag 110

```

<210> 1848

<211> 351

<212> DNA

<213> Homo sapiens

<400> 1848

```
gaattcgcgg cgcgctcgac cagccttaca ctaggcacac acttttagagt ctggggctcc 60
agtggggccc gccctaatttt ttttcccccc aagacagggc cttgctctgt ctcccaggct 120
ggagtgcagt ggcatgatca tggcttactg cagccttgat ctcccaggct caagcgatcc 180
ttctgcctca gctctctctgg tagctgagac tgcattgcca gctccaaatc accttgattc 240
atatcagcag taataatcac ttgtgttctg aaagaaaggg caccagaagt tctagcaaaa 300
ttcagttgtg ttctgtgagc tagcactttt tcctctgacc cctgcctcga g 351
```

<210> 1849

<211> 414

<212> DNA

<213> Homo sapiens

<400> 1849

```
gaattcgcgg cgcgctcgac cgtcgattga attctagacc tgcccgtctg agagcacagc 60
tccccacttc ttggaccccc tcttctcttc caccaagagc cattcgcagc ggcagcccc 120
gctggccacc ttgagttctg tgcctgggtg gccggagccc tgccctcagg attgcagccc 180
tgctcacac cgcgtgcacc ctcccttctg catttcaaca ggtgccactg tccccactt 240
tgcagagggc tccggggggc cagtggcccac taccagcacc ttgattcttc ctccagagta 300
cagttcttgg ggctaccctt atggtgagtc gacagccagg gcttggcagg gaggggacgc 360
caagagcccc acgcagaccc tgctttcttc ccgcagaggc cccaccgtct cgag 414
```

<210> 1850

<211> 359

<212> DNA

<213> Homo sapiens

<400> 1850

```
gaattcgcgg cgcgctcgac gttgggatgt ctatatgtct gctgcagtcc ctaccgctgg 60
aaacggggag aacctcgggt gggaggctgt tgcctggtct tagcgcttct atctaagctg 120
cccagggttg tggccccctc tagtcttttg ctccggcagc gcttccatcg ggtcaccgga 180
aactcccact cgaccatcaa cccaacaga gaacgtgaaa gctagagtca cttcaacagg 240
ttcctaaaga taaaggctaa actctagagt ggtggtagaa gatgagttgg ttcagcatgc 300
tatggggtaa gtaagcttgt cacggagggc tacaggcgtc tcctgggaag gacctcgag 359
```

<210> 1851

<211> 292

<212> DNA

<213> Homo sapiens

<400> 1851

```
gaattcggcc aaagaggcct agagagggtt aaatgagtct ggctgggtgt aagtcagatt 60
cttatggctt tcttctaatt ttgaaggctg ttctaattgc attttcttta agtcctgtag 120
taattcttca gaaagatctt catcaccatg aattttgaaa gtaagatcac tggcactaat 180
agagcgacgt aattttgtac acttggaaaa agatgtgtga aaacatttag caaattttgg 240
atcttgaaca tcaggcataa tttctgttgg agatgtaaat ggggctctcg ag 292
```

<210> 1852

<211> 229

<212> DNA

<213> Homo sapiens

<400> 1852

```
gaattcggcc aaagaggcct aggaaaaacc tttgataatc ttgttggcaa aaatgcgtat 60
ttttttgatt actagttagt ttatttattt atttttttat ttttcgagat cgtgccactg 120
cactccagcc tgggcaacag agcaagacc tgccaagaga aaaaaagac tgtgtctttt 180
cacattccac caatatactg atagcatctg tctctctgca aatctcgag 229
```

<210> 1853

<211> 288

<212> DNA

<213> Homo sapiens

<400> 1853

```
gaattcggcc aaagaggcct acgaggggtg agaggaatgg aaagcagtgt cccttttgag 60
aaggcaaat tacagctggc ttttgtaatc ctactatatt tttgtttgtt tgctaagtct 120
ttgatagtcc ccagtgtggt ttgtctgccg gtgatctcag caccaccaga gagcttgta 180
gaaatgcggc atcccaaccc caccacagcc ctcccaagtc agatactgcc acctcacgag 240
gccccccagg gatccacaag ttcattaaag tttcaggaat ccctcgag 288
```

<210> 1854

<211> 182

<212> DNA

<213> Homo sapiens

<400> 1854

```
gaattcggcc aaagaggcct aatagaagtg agcaaaacaa aaatcccgtt ccttgtggag 60
cttgtatttt gatgagaagg aggaattcaa attttaaact tctgttaaag gatattttat 120
ttccttattt gatttttatt ttgagaccga gtcttctgtt tgcccatgct ggagtgtctg 180
ag 182
```

<210> 1855

<211> 198

<212> DNA

<213> Homo sapiens

<400> 1855

```
gaattcggcc aaagaggcct acgattgaat tctagacctg cctcgagctt cctgggtctc 60
cacatgctgt tcatcactct cctcctcttt acctggatgc ctctgtgctg tgccctccga 120
cctccactga gacaatgtca cctccaggaa gtgccccctc caatcctctc ctccacaaat 180
acctgtccc gactcgag 198
```

<210> 1856

<211> 239

<212> DNA

<213> Homo sapiens

<400> 1856

```
gaattcggcc aaagaggcct agacattcct tgtgacttgg aagtttacaa tcatcatcct 60
ttttttaaag gactctatct ttcttttctt ttaaactcct ttctctcttc tttttgtctg 120
cttctgtgct tgaagccctt tggatgttac cagtaggcaa agcaaaaatg gcctcatctt 180
tattttccat tcttttctta atttttatgt ttcttcttct acatcctatc ccgctcgag 239
```

<210> 1857

<211> 218

<212> DNA

<213> Homo sapiens

<400> 1857

```
gaattcggcc aagaggccta gtgcattgag gttgcaggta tacagtcacc aaagaacctg 60
aaataattgc cggaatgata tctcttaaaa gatgtgagcc tctcagagag agagagagag 120
ggttcctctt gcaacaggca tcgtgtgtgt gttttatgtc ccttctcttc tgctgctgtg 180
cacttaattc ggttccagcc gtgtcaggga gactcgag 218
```

<210> 1858

<211> 248

<212> DNA

<213> Homo sapiens

<400> 1858

```

gaattcggcc aaagaggcct acttcctttt cccctaagt taataggaca gagatatcat 60
atcctttttt ctattctttg ataattcttc cctgtttttt tccctttctt tttctagaac 120
tcctatcagt cacaagttaa aggtcctaaa ttgacctaat gactctttct ttttactcat 180
atcttctgtc tcttttattt tgttctagtt tcggcttttt aaaattttat ctccaactc 240
cgctcgag                                     248

```

<210> 1859

<211> 242

<212> DNA

<213> Homo sapiens

<400> 1859

```

gaatttggcc aaagaggcct aactttttca acctctatct cttacttctt gcctgctctc 60
agtttggttc cgaatgaga cttgggtcac tctataccta ctgggttccc ctgggcttcg 120
tgctggcgt cactgtcatc cgtgaggcgg tggaggagat ccgatgctac gtgcgggaca 180
aggaaagtc aa ctcccaggtc tacagccggc tcacagcacg aggcacagtg aaggatctcg 240
ag                                     242

```

<210> 1860

<211> 210

<212> DNA

<213> Homo sapiens

<400> 1860

```

gaattcggcc aaagaggcct agccaagaa aaaagaaatt ggcattctct agcaaagaga 60
ttagactttt aaataactct tataaaacag gttggcgatc atttcccaag attgggttcc 120
cttgagtttt tgctaaaaca aatcttagta gttttgcccg tttaaaacaa ctcacaatcg 180
taaatgctac tattcctaag atatctcgag                                     210

```

<210> 1861

<211> 253

<212> DNA

<213> Homo sapiens

<400> 1861

```

gaattcggcc aaagaggcct agaaggacat cacaatgctg ttagacaccc agtgcattct 60
tgccctgac agaatttgga actacaataa atctcggata cattccttcc gaggcggtgaa 120
ggacatcaca atgctgttag acaccagtg catctttgaa ggagaaatcg ccaaggcctc 180
tggaaccctg gcgggagccc cagagcactt tggagacacg atcttattca caaccgatga 240
tgacattctc gag                                     253

```

<210> 1862

<211> 485

<212> DNA

<213> Homo sapiens

<400> 1862

```

gaattcggcc aaagaggcct accaagtctc aatttttagcc ttacaaatta ctaatttact 60
gtttctctct ctctaagcct cagctccctg atctagacca tgagatttac agtaggagag 120
taccatgttt atccccaat acctaacagc taggggtttc ccagactgaa taataataat 180
aactttttta aaattcagaa ggtatcttca agttcttggc ttgcttcttg tacattcaat 240
atcaaagaag agaaaacaca ctatctgaga gtacttccca tgcacctaat aagtgccaaa 300
gccacctggt gctagagccc ttcacaaaaa tgagcatcag ccttgctttc agaaagcagg 360
gaccacatat atatgattta aaaaaaatct gcgatcaact tttctctaaa aaacccaaat 420
atgctggggg acagaaagat caatgcaaaa gcaaaacatc ctgtgcctgt cctaaccctc 480
tcgag                                     485

```

<210> 1863

<211> 343

<212> DNA

<213> Homo sapiens

<400> 1863

```
gaattcggcc aaagaggcct aagatattgt catgttcatt cagaattata cccagtcatt 60
ctccctgctt ttagcaacca atattttaat aatgtataat attttgtcca ctgaatgtgc 120
cactttacat aacaatactc ctgatgctgg actttcacat tgttatcaac ttttactgt 180
caataatgtt gcaatacata tctttttgag agataggggt ttaaattttc tttattttga 240
aataagttct aggttagagc cccaggatgg gattagttgg tggaaaatta agaatcctaa 300
tgcactgaag actcctattg aaaccaagag caagatactc gag 343
```

<210> 1864

<211> 258

<212> DNA

<213> Homo sapiens

<400> 1864

```
gaattcggcc aaagaggcct aggtagtgg aagtcgagag tcagtaattt tcttacttaa 60
tattgtgggg atcttactta atacataaag ttaatgaaac tagaaatagt ggtttaatat 120
attacttata attcaaaaat taacctatat ttacagatgc ttacacagtt tctttgtgaa 180
tccacctatg gttttatttt aattaatttt ttattgcaa gcaatgaaat gttgctttgt 240
ggagccagaa agctcgag 258
```

<210> 1865

<211> 290

<212> DNA

<213> Homo sapiens

<400> 1865

```
gaattcggcc aaagaggcct atgaattcta gacctgcctc ttataagcca cattcctgct 60
gttctcctgc actctcttga ttctgtatct ttacatctag attattttta cctcctaggt 120
tctttccctc ttcattacta ctttataaaa atacatccat tcttcaaata ttttcccaat 180
ctcccagtaa gaattagcct ctctcaatgc tgggtgcagt gctcattcct gtaatcccag 240
cactttggga agccgaggca ggcagattgc ttgaaccctg gagtctcgag 290
```

<210> 1866

<211> 305

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (16)

<400> 1866

```
gaattcggcc aaagangcct acgaggaatg tggatatctg actagattaa aaggttaaag 60
aactgtttta agttggataa gataaagaca aaggtttaag caagttgtgg aagggtgatt 120
gtaaagggaaa ttctgtgtgt aaacatactg gctgtagtta aaaagggtat tgtccagttt 180
ttctgtaaat tgagcattaa aataaaagca caatgggttt ctcttacagc actatcctgc 240
tttttttttg cttttttttt tctttggaga cagagtctcg ctctgttgcc caggctgggc 300
tcgag 305
```

<210> 1867

<211> 202

<212> DNA

<213> Homo sapiens

<400> 1867

```
gaattcggcc aaagaggcct actcatcagc tttgatgatg agatcgatgt ccaccaaggg 60
cttgctctgc agaactggaa ctgggggggt ggctgggggc cttctctcca gtgacttgta 120
tgctttggct tgtgatgccc ctgcgagtag gggaggggtat ggggtgagtc cttccttgga 180
```

ggccaccttg agtctgttct ca

202

<210> 1868

<211> 250

<212> DNA

<213> Homo sapiens

<400> 1868

gaattcggcc aaagaggcct agtaatttcc ccttgaaaat tcctagtcac tccctctgtt 60
 cctccaaatc taattgctga taaatccctt tcagggtctct cttctataaa gtcttccaaa 120
 acccagatag ccaaccacaa cccaccatcc ccttgaaaatc ttgttgctct catccatgcc 180
 acacatctgg aatttgctat atctactggg atttgacatg tataaaatct atttctgccg 240
 ggcgctcgag 250

<210> 1869

<211> 133

<212> DNA

<213> Homo sapiens

<400> 1869

gaattcggcc aaagaggcct acctaaaccg tcgattgaat tctttgtggc tacagatcaa 60
 aaattcatatc tgaaaaagat atttgtcatt taacatggaa cttttccaat acattttaag 120
 aggcatatc gag 133

<210> 1870

<211> 244

<212> DNA

<213> Homo sapiens

<400> 1870

gaattcggcc aaagaggcct agagaacaca gccagcaggt gcctataagc aagaaagtgg 60
 gttctcacca gccatcgaat ctgctgggtgc attgattgca gacttcccag actccagagc 120
 tatgagacat aaatttctgt tgtgtataag ccatacagtc tatgggtattt tgttacagca 180
 gcctgaaggg actaagacac cttcctgttt tacagacaag atgcccagaag caccacaact 240
 cgag 244

<210> 1871

<211> 262

<212> DNA

<213> Homo sapiens

<400> 1871

gaattcggcc aaagaggcct attcaaattt ataggctaac tgcgtatatc ctcattagtt 60
 catatcagtc tagttaatag caacgttagc caaattttta aataaaaaata actacattta 120
 gaaagtgatt tattttcttt tcttttttct tttcttttct tttcttttct ctttctgtga 180
 gatgggggtct cgctctgtca cccagggtgc agtgcagtgg caggggtctca gctcactgca 240
 acctctgact cctgagctcg ag 262

<210> 1872

<211> 418

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (48)

<220>

<221> unsure

<222> (65)

<400> 1872
gaattcggcc aaagaggccc acctaaacct tctccactaa acgtcgttag ggccctcagtt 60
ctagnacgag tcataacctga ttcacctgca ctgcttcccc cgtgtgctga gcatagagca 120
tacaatagcg cctacttcac ggaaacttgt gcctttaaac ttgttaaact taaacacagc 180
cgagaagttg cttcttttga cttttcttac ttttctact ttttgtaga aaaaaaagat 240
aatgcctctg cttctatttc tctgggggtg ggggtggggg ccgggagccg tcgcagaccc 300
gtttcatgca gcgtctccct cggcaccgag ttggaggac gcacctcac tccctgctg 360
ccttcaactcc tttctgacca agcaacgcta acttttgtac agatcgattt gactcgag 418

<210> 1873
<211> 174
<212> DNA
<213> Homo sapiens

<400> 1873
gaattcggcc aaagaggcct aaatttagcc ataagactaa ataataagat gccactattg 60
tatttgaacc attctgggtt cttttcttct tcttttaaat cgcaaagttc agctatgtca 120
gtattcctgc tctcgtctct gttggcagta ttaaaatcaa ctttaccctc cgag 174

<210> 1874
<211> 229
<212> DNA
<213> Homo sapiens

<400> 1874
gaattcggcc aaagaggcct aaggagccag cttatcagtg tggagaagat tgcagctgca 60
atttgcctgt tagtctctgt tcttttaacg ctttctgaa gtgccatttt gtctcggtaa 120
aatgctccct gaaaatactc aaatattttt agttgtagag taaaaatcag attgagctgc 180
acatttccct ggtgagcaaa agtgatgagt ttgtgttcat taactcgag 229

<210> 1875
<211> 191
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (90)

<400> 1875
gaattcggcc aaagaggcct agtcatttcc tgaggatggt ccagtggctc agtgcgtgtg 60
tgtgtgtgtg tgtgtgtgtg catgtgtgtg tgtgtgttt aataaattgg aagcaagaac 120
atattgatgt catgaagtta cacttattta ttacggaaaa caaaaagaca gctttacatc 180
ataacctcga g 191

<210> 1876
<211> 277
<212> DNA
<213> Homo sapiens

<400> 1876
gaattcggcc aaagaggcct actgagcctc agttttctct tctgcatagt gagactaaaa 60
tagtactgcc ccattgtggt gttgggaaga cgccataaga taatagatgc aacatcttag 120
tgctccagct gagcgcttag tttatgccag ctggcactgt tgggtgttaac tgcgtatttg 180
ttgtatgact gtcacttcga cagcctgtac cctccttgag ggcagagact ttgtctcagt 240
cacataaaca tttgatggaa agaaggtaaa tctcgag 277

<210> 1877
<211> 203
<212> DNA

<213> Homo sapiens

<400> 1877

```
gaattcggcc aaagaggcct atttcaagat tgttaaattg agacaagtaa ctgaataatt 60
tgtcctattt ttatttttaa aaaagtgaat ggactgaaat gttaaattgt aatgtacatt 120
tcttaattgc aacttttcta ctgagtgttt gcactatact ttctggaatc ttatttaaca 180
aaaataataa agggaagctc gag                                     203
```

<210> 1878

<211> 254

<212> DNA

<213> Homo sapiens

<400> 1878

```
gaattcggcc aaagaggcct acccacgggt cccaagggtgc ctttctgtgg accaggcgag 60
caggttccag gccctgattc cctgaccctg ggggacgaca gcattccgtag cctggacttt 120
gtgtccgagc cgagcctgga cctccctgac tatgggcccag ggggcctgca tgcagcctac 180
ccgccatccc caccgctcag cgctctgat gccttctcgg gcgctttgag ctccctgagc 240
ctcaaggcct cgag                                     254
```

<210> 1879

<211> 229

<212> DNA

<213> Homo sapiens

<400> 1879

```
gaattcggcc aaagaggcct aggaagataa gtgtgtgtat agatttttta aagattgggt 60
tataaattga taattgttaa agtaggttga taggtatatg ggagtttatt atactatccc 120
acttttacgt gtgtttgaaa aaattttttt taaatcgttg tttttttccc ccttttgctt 180
tctaggattc ttacagaagc agagattgat gctcaccttg ttgctcgag                                     229
```

<210> 1880

<211> 247

<212> DNA

<213> Homo sapiens

<400> 1880

```
gaattcggcc aaagaggcct aaatgaatgt caaaggaaaa gtaattctgt caatgctggt 60
tgctcgaact gtgacattg tgttttgga atttatcaac agcacagaag gctctttctt 120
gtggatatac cactcaaaaa acccagaagt tgatgacagc agtgctcaga agggctgggt 180
gtttctgagc tggtttaaca atgggatcca caattatcaa caaggggaag aagacataga 240
gctcgag                                     247
```

<210> 1881

<211> 248

<212> DNA

<213> Homo sapiens

<400> 1881

```
gaattcggcc aaagaggcct acttcccttt cccctaagt taataggaca gagatatcat 60
atcctttctt ctattctttg ataattctc cctgtttttt tccctttctt tttctagaac 120
tcctatcagt cacaagttaa aggtcctaaa ttgacctaat gactctttct ttttactcat 180
atttctgtc tcttttattt tgttctagtt tcggcttttt aaaattttat cttccaactc 240
cgctcgag                                     248
```

<210> 1882

<211> 179

<212> DNA

<213> Homo sapiens

<400> 1882

gaattcggcc aaagaggcct acaggtgtac accaccacat ccagtttata agctttttct 60
tattaaaaaa agtttttttt ttttaagttt ctgttaaaaa ctaagacaca aacacatata 120
ttagcctagc cccacacagg gtcgatgagg tcagtatcac tgtcttctac ctccctcgag 179

<210> 1883

<211> 206

<212> DNA

<213> Homo sapiens

<400> 1883

gaattcggcc aaagtgccta cacgtatatt ttcaaggact cactcttaga aacaaaaatg 60
tcatactttc atacttcatt ttgtgggtgt cttacatttt tttttttttt ttttttttct 120
ctaatttaac ctttatggaa gctttaaaagt ttgtcaaaa catgagtgct ttgcccatca 180
gtgaatggaa tggaccgatg ctcgag 206

<210> 1884

<211> 193

<212> DNA

<213> Homo sapiens

<400> 1884

gaattcggcc aaagaggcct actatacacg aggcaccagg ccaactccag tgacaacaat 60
ttgcaaactc caagcactga tctccagtgt gtgcttgatc tgggtgtgtgt gtgtgtgtgt 120
ctgtatatac attcccagga gcacacacat ggacaagtta ctacagcccc cgctcccaag 180
tccaccactc gag 193

<210> 1885

<211> 238

<212> DNA

<213> Homo sapiens

<400> 1885

gaattcggcg ccgcgtcgac ccttgcaggc attactaaat cgcttccttc acccaaaaaca 60
tatcatggcc atgagttgtg actgccaaag aatgtgcctt gctagtttga agatgcagtt 120
gattttatta ttttattatt ttattttatt ttttgagaca gagtgtcaca ctgtcgccca 180
ggctggagtg cagtggcacg atctcggtc gctgcgggct ctgcctcccc ggctcgag 238

<210> 1886

<211> 715

<212> DNA

<213> Homo sapiens

<400> 1886

gaattcggcg ccgcgtcgac cacatgaact gagcaaatga gatagaaaca tggcattctt 60
aattatacta attacctgct ttgtgattat tcttgctact tcacagcctt gccagacccc 120
tgatgacttt gtggctgccca cttctccggg acatatcata attggagggt tgtttgctat 180
tcatgaaaaa atgttgtcct cagaagactc tcccagacga ccacaaatcc aggagtgtgt 240
tggcctttgaa atatcagttt ttcttcaaac tcttgccatg atacacagca ttgagatgat 300
caacaattca acactcttat ctggagtcaa actgggggtat gaaatctatg acacttgtac 360
agaagtcaca gtggcaatgg cagccactct gaggtttctt tctaaattca actgctccag 420
agaaaactgtg gagttttaagt gtgactattc cagctacatg ccaagagtta aggctgtcat 480
aggttctggg tactcagaaa taactatggc tgtctccagg atgttgaatt tacagctcat 540
gccacagggt gggttatgaat caactgcaga aatcctgagt gacaaaattc gctttccttc 600
atttttacgg actgtgcccc gtgacttcca tcaaattaaa gcaatggctc acctgattca 660
gaaatctggt tggaaactgga ttggcatcat aaccacagat gatgacgtcc tcgag 715

<210> 1887

<211> 401

<212> DNA

<213> Homo sapiens

<400> 1887

```
gaattcgcgg ccgcgtcgac attgaattct agaccatggc cctgtgcttt gtcattcttct 60
ccttctgcag cctcctgctg tttatctgtg ttggaagaaa tgtgctcact ctgttactct 120
tcattgcaag agcgtttatt tctggaggct ttcaagcggc atatgtttac acacctgagg 180
tctacccac ggcaacgcgg gccctcggcc tgggcacctg cagcggcatg gcaagagtgg 240
gtgctctcat cactccgttc atcgcccagg tgatgctgga atcctctgtg tacctgactc 300
tggcagttta cagtggctgc tgccctctgg ctgccctggc ctccctgctt ttgcccattg 360
agaccaaagg ccgaggactg caggagtcca agccactcga g 401
```

<210> 1888

<211> 248

<212> DNA

<213> Homo sapiens

<400> 1888

```
gaattcgcgg ccgcgtcgac ctctatctca aaaaagtaaa aataaataaa taaatttcct 60
gttttaattt ctaatgtgat aaatataata ggtatgtgcc actgcactcc agcctgggtg 120
acagaggagg attccatctc aaaaaagta aaaaataata aatttcctgt tgtaatttct 180
aatgtgataa atataatagg tataatgcac gttaactaaa gcattttaga gtctcagtag 240
gtctcgag 248
```

<210> 1889

<211> 222

<212> DNA

<213> Homo sapiens

<400> 1889

```
gaattcgcgg ccgcgtcgac ggatatttgt ttttttgggc gcgacacaaa tcgaggtagg 60
ggaagagaga ggaatatccc ctgaatccct gcaggattaa tttattcaaa aaggaaataa 120
aaaaactca atattgcaaaa gtcttgtaga gaaaatgagg gaaaaccaca gaacatgcca 180
aaggccgagg aagatcgccc tttggaggac gacgcactcg ag 222
```

<210> 1890

<211> 361

<212> DNA

<213> Homo sapiens

<400> 1890

```
gaattcgcgg ccgcgtcgac ggattataat cttctggacc acctttgtat atatagtcct 60
ttcaggatcat atggctcagg actgtagttt gaacccatgt ttctcatttt ttttgtttgt 120
ttgttttttg agacagagtc tcgctgtgtc gcccatgctg gagcgagtg gcgcggtgtc 180
ggctcgctgc aacctctgcc tcccgggttc aagcgattct cctgcctcag cctcccagat 240
ggctgggatt gcgggcgcgc accaccacgc ccggataatg ttttgtattt tggtagagac 300
ggggtttcac catgccgtcc aggtcgtctc cgaactcca acctcaggtg atccactcga 360
g 361
```

<210> 1891

<211> 230

<212> DNA

<213> Homo sapiens

<400> 1891

```
gaattcgcgg ccgcgtcgac gccaaaggact taaatccagg actaccagct ctaaggctgg 60
ctctgccttg gattatattt gtatttagaa catttacatt taatgtaatg attgagatgt 120
tagggcttaa gtcaccatt ttatttatta tttctcttc cctctccctt ctgtcctcac 180
cctgttatcc tcagagggag aaaacacaga agagaggcac aaagctcgag 230
```

<210> 1892

<211> 224

<212> DNA

<213> Homo sapiens

<400> 1892

```

gaattcgcgg cgcgcgtcgac attcctaataa ttctaagggt ttatgatctc tgcataagatc 60
agtatctttt gatctgaatg aatcaatatg aagatctttc tttctttctt tctttttttt 120
tttttttttt tttttttttt agacgggggt ttgctcttgt caccaggtt ggaatgcagt 180
ggtgctatca cagctcactg cagctcctaaa ttcttggaact cgag 224

```

<210> 1893

<211> 709

<212> DNA

<213> Homo sapiens

<400> 1893

```

gaattcggcc aaagaggcct aatctaattg cgatgtagtt aattggcttg gtgtgtttat 60
ggctctttat cctaaagtat atatttaagt acctaaaagg atcagttaat tattttttct 120
ttgagttgtt tctggaaaat tgtgtagaat aaaaatatct caaaatatat gtgtccttta 180
atattaaagc acttttgtaa agtatataac atttccttgg tttgctactt atcacttttt 240
aagggggatc tgttgctttc cattactaga tttttaagaa ttatactcta ttaattggct 300
tttaaaaaac tctaacattt tatttgcaga ttaataagag gagtatagaa aaatttggtt 360
aacatatctt caagtgtttt cctctccctt atcactatgc acaagagtgt tcacatatat 420
aggcactata tatactattt gttggatggc tgttggatg ggtgggtaag tggatgagta 480
aataatatat tcagatttgt tgtatatatt atacatgtaa tatacataaa aacaaatatg 540
tatatatctt gtgtgttttg aatacttttg ttaagtggct tccaaagtat gtgctataaa 600
aaccttctgc acaaaaagggt ctccatagcc aaatagattt ggaaatgtga tatattattt 660
ttatgtcaag aaattcttaa tatagattaa cacgttaaat attctcgag 709

```

<210> 1894

<211> 578

<212> DNA

<213> Homo sapiens

<400> 1894

```

gaattcggcc aaagaggcct attgaggaac tgtcctacag tggaaagagac tatgtacgaa 60
ctgggtgcag tgcagtgatc ttttttgcata taatgttatt ggggcaactg atgaaaactt 120
gaatgggggg gtctctggat tctttgtatt atatatagga gttctttgta ttattgttgg 180
aactttatta caagtttgca atgatttcaa catagaaaag gataccatta agagaatgga 240
aagcaacagc aaaatcctga tggaaagggg ccagttagcga gggaaagact aaaaagagtt 300
agaaagcagg gaggtagttg agagggcaag gtctctggga ggtaggagat aagaagagga 360
tggattcact ttgggatggg gggctctgtt ttcgttgtaa tagtggtgaa agataacaca 420
tgggaggaaa ggatgcagct tgaggatgga ggtaattttg aaggctctta ggaccattta 480
aagtatatatt tctttctata agactggcaa acacttttgt cagtggagtt ttagggtgaa 540
aaagtaagcc tgagaaaagaa agctagggag tgctcgag 578

```

<210> 1895

<211> 258

<212> DNA

<213> Homo sapiens

<400> 1895

```

gaattcggcc aaagaggcct atgattttcc aatattaccc atattttttt gctagtattt 60
tttagtaaaag aagagcttca tctctctccc accttgttag taacactgtg gactcctgga 120
ttttctttca gttcagtgat taccattcag tgtgtgtgca tggacatcac tgtgcctatt 180
gatgcactaa ttgtcccaaa tctgacgatg ggagcccttt caagcttgct tttctgttct 240
tttgcgcact cactcgag 258

```

<210> 1896

<211> 423

<212> DNA

<213> Homo sapiens

<400> 1896

```

gaattcggcc aaagagacct acgggcatgg tagcagggtg ctgttatccc agttaggagg 60
ctgaggcaag agaattctctt gaacctgaga ggcggagggt gcagtgaacc aagatcgccg 120
cattgcactc cagcctgggg gacaagagtg agacttagtc tcaaaaaaaaa aaaaaaaaaa 180
aaaaaaaaat cagggatata gtccatatac cacttctttg ttacaccga tgcctctgaa 240
tatcagcctg tagctaattg acttgggatt tctgggtctaa gtgggcctcc tggggatggg 300
gtgggtacact gagcttctga gcctcattgt agagtagaaa ggtactgggg cctgtgtggt 360
aagccttgtt gaaatgctct ggtattcagt attgccttaa taaacttcac ccagcaactc 420
gag                                                                 423

```

<210> 1897

<211> 182

<212> DNA

<213> Homo sapiens

<400> 1897

```

gaattcggcc aaagaggcct aatagaagtg agcaaaacaa aaatcccggc ccttgtggag 60
cttgtatttt gatgagaagg aggaattcaa attttaaaact tctgttaaac gatattttat 120
ttccttattt gatttttatt ttgagaccga gtcttgctgt tgcccatgct ggagtgtctg 180
ag                                                                 182

```

<210> 1898

<211> 281

<212> DNA

<213> Homo sapiens

<400> 1898

```

gaattcggcc aaagaggcct attgaaacag acgtctgcaa acagaggact ggttttacca 60
tgttggccca gcttgtcttg atctcgtaa catggtttta ccatgttggc caggctggtc 120
ttgatcttgt gacctcagg gatccgcctg cctcggcctc ccaagggtgt ggggtttata 180
gggtgtgagcc accgtgcctg gctgaagtgt acatgtgttt aaatgagatg ctgaaagatg 240
aaaagaaggg gtgcatgaac aagagtgggg ctgggctcga g                                                                 281

```

<210> 1899

<211> 329

<212> DNA

<213> Homo sapiens

<400> 1899

```

gaattcggcc aaagaggcct atgaagatct ctattcctat gtgtctcagc ttggggctgg 60
tgggacttct cttctgtggg gcggatgtgg gtggcttctt caaaaaccca gagccagagc 120
tgcttgtgct ctgggtaccag atgggtgctt accagccatt ctccgggca catgcccact 180
tggacactgg gcgacgagag ccatggctgt taccatctca gcacaatgat ataatccgag 240
atgccttggg ccagcgatat tctttgctgc ccttctggta caccctctta tatcaggccc 300
atcgggaagg cattcctgct aagctcagag                                                                 329

```

<210> 1900

<211> 163

<212> DNA

<213> Homo sapiens

<400> 1900

```

ggggattaca ggcattgagc accgtgcccg gcctgcatcc attatttctt atcagatatt 60
ctgcgttctc ttctttttgc tgcctgccat tgccttactc tccaggctgc ttcattctcat 120
agactattgt cacagccatg tcaacttccc caggccactc gag                                                                 163

```

<210> 1901

<211> 212
 <212> DNA
 <213> Homo sapiens

<400> 1901
 gaattcgcg cgcgctcgac cgaagggtct gaaaccaca cattcgtctt aaattttctg 60
 aaattttattt acttggttta aatatgatga taagagccgc ccacctgcat gggcttctgt 120
 ccttgctttt aatgtggatt tatgccactg atctgcattt tggacatcat aagaaatact 180
 gctgtgcttc cctacacacc acccaactcg ag 212

<210> 1902
 <211> 195
 <212> DNA
 <213> Homo sapiens

<400> 1902
 gaattcgcg cgcgctcgac cctaaagtta ctgctgacct tgaagcattg ttaaagacta 60
 atgtcctctc ctccactggt gaggtctggc gcttctggag gctactttgc actcttcctc 120
 ttctcctttt tccgcacttc tccacccctc ccacatttac agccagaatc aacattccct 180
 gggcccatc tcgag 195

<210> 1903
 <211> 275
 <212> DNA
 <213> Homo sapiens

<400> 1903
 gaattcgcg cgcgctcgac ctgcaaacga tcaatcttct cttaaatagg tttaaaatgc 60
 tacctgaagt tctatatcgt atcttcacac ttgaaacaat tctgattagt aataatcagg 120
 ttggatctgt ggacctcag aaaatgaaga tgatggaaaa tctgaccacg ttggaccttc 180
 aaaataatga cctcttaca attccaccag agctcggtta ttgtgtaaac ttaagaacat 240
 tactactgga tggaaatcca ttccgacatc tcgag 275

<210> 1904
 <211> 153
 <212> DNA
 <213> Homo sapiens

<400> 1904
 gaattcgcg cgcgctcgac gcagattgta cagaaagcta ccctagagtc cctgttggtg 60
 gggaattgcc aacgtatttt ctgcctccgg aaaacaaagg actcaggatc caggaactca 120
 gcagtgatga ttattctaca gaagatactc gag 153

<210> 1905
 <211> 177
 <212> DNA
 <213> Homo sapiens

<400> 1905
 gaattcgcg cgcgctcgac caggatatca agtttacaac aatactaagt agtcttcagg 60
 gctttttgga gagagtttta gacatcatag aagaacaaat taaatgccta aaggacaatg 120
 aatctacttg tgttgctgac catatcaaca tggttttcaa aatacagcgc cctcgag 177

<210> 1906
 <211> 156
 <212> DNA
 <213> Homo sapiens

<400> 1906
 gaattcgcg cgcgctcgac ggtatctgta tatctttcct tttgtttaca actgttaaaa 60

aacctcaaaa tagttctctt caaaagaaga gagattccaa gcaacccatc tttcttcagt 120
atgtatgttc tgtacatact tatcgggtcg ctcgag 156

<210> 1907

<211> 202

<212> DNA

<213> Homo sapiens

<400> 1907

gaattcgcgg ccgcgtcgac acaccccttg cctctttaa acacagctcaa gaattgaccc 60
tggatccctat ccgcataatc tccagcctct gtctgtgatc actaacatac cctccctcat 120
gcatgtattc ctgtcattgg ggatactctg tgtacatgac tcatttgtct acatcatgat 180
ctacttecta caacatctcg ag 202

<210> 1908

<211> 156

<212> DNA

<213> Homo sapiens

<400> 1908

gaattcgcgg ccgcgtcgac gatgcaagga catacgggac ggtrattaaa gtctctgtgc 60
ttcatcagtc tttctcttct gtgtgtgac atcattttcc acatcacgtt ggtgagcctt 120
gaagctcaac atcgtattgc acctggcacc ctcgag 156

<210> 1909

<211> 180

<212> DNA

<213> Homo sapiens

<400> 1909

gaattcgcgg ccgcgtcgac ctggattaca aggaattctt tgtagaaaat atcttgaaca 60
ttttttgctt ttcttagtaa gtttgcccaa ttataaaagt tacagctttt gggccagatg 120
tggtggtctca tgcttgtaat cctagcactt tgggaggctg aggcaggcgg atcactcgag 180

<210> 1910

<211> 297

<212> DNA

<213> Homo sapiens

<400> 1910

gaattcgcgg ccgcgtcgac gatacttgag gtaagaaacg ttttactat gactgcgaaa 60
gagggaagaa agaaatcgat ccgtgtcttg gtggctgtgg ggaacggaaa aggagctgca 120
ggtttttcta ttgggaaagc tactgatcgg atggatgctt tcaggaaagc aaagaacaga 180
gcagttcacc atttgcatca tatagaacga tatgaagacc atacaatatt ccatgatatt 240
tcattaagat ttaaaaggac gcaatctccg tcgattgaat tctagacctg cctcgag 297

<210> 1911

<211> 319

<212> DNA

<213> Homo sapiens

<400> 1911

gaattcggcc aaagaggcct acaggagtgt tgagtttcca agccccagct cactctgacc 60
acttctctgc ctgcccagca tcatgaagg ccttgacgtt gccctccttg tctctgtctg 120
caccatggcc ctctgtctct gtgcacaagt tggtaacca aaagagctct gctgcctcgt 180
ctatacctcc tggcagattc cacaaaagt catagttgac tattctgaaa ccagccccca 240
gtgcccgaag ccaggtgtca tctctctaac caagagaggc cggcagatct gtgctgaccc 300
caataagaag tgggtccag 319

<210> 1912

<211> 635
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (460) .. (461)

<400> 1912
 gaattcggcc aaagaggcct agaagagcaa gcgccatgtt gaagccatca ttaccattca 60
 catccctctt attcctgcag ctgccctctc tgggagtggg gctgaacacg acaattctga 120
 cgcccaatgg gaatgaagac accacagctg atttcttctt gaccactatg cccactgact 180
 ccctcagtgt ttccactctg cccctcccag aggttcagtg ttttgtgttc aatgtcgagt 240
 acatgaattg cacttggaac agcagctctg agccccagcc taccaacctc actctgcatt 300
 attggtacaa gaactcggat aatgataaag tccagaagtg cagccactat ctattctctg 360
 aagaaatcac ttctggctgt cagttgcaaa aaaaggagat ccacctctac caaacatttg 420
 ttgttcagct ccaggaccca cggaaccaca ggagacaggn nacacagatg ctaaaaactgc 480
 agaatctggt gatccctctg gctccagaga acctaacact tcacaaactg agtgaatccc 540
 agctagaact gaactggaac aacagattct tgaaccactg tttggagcac ttggtgcagt 600
 accggactga ctgggaccac agctggacac tcgag 635

<210> 1913
 <211> 364
 <212> DNA
 <213> Homo sapiens

<400> 1913
 gaattcggcc aaagaggcct acagcatggt gtgtctgaag ttccctggag gctcctgcat 60
 ggcagctctg acagtgcac tgatgggtgct gagctcccca ctggctttgg ctggggacac 120
 ccgaccacgt ttcttggagc aggttaaaca tgagtgtcat ttcttcaacg ggacggagcg 180
 ggtgcggttc ctggacagat acttctatca ccaagaggag tacgtgcgct tcgacagcga 240
 cgtgggggag tacccggcgg tgacggagct ggggcggcct gatgccgagt actggaacag 300
 ccagaaggac ctcttggagc agaagcgggc cgcggttgac acctactgca gaacaactct 360
 cgag 364

<210> 1914
 <211> 159
 <212> DNA
 <213> Homo sapiens

<400> 1914
 gaattcggcc aaagaggcct aggcgtaatc tgcataatc ttcttgtcca gctgtatccc 60
 ataagcccag attcaccggt ttcccatcta ccataacatt ggcagaataa ttgtcaaaga 120
 cagtagggat atattctcca gaaatgcat tggttgtgg 159

<210> 1915
 <211> 470
 <212> DNA
 <213> Homo sapiens

<400> 1915
 ggaatcggcc aaagaggcct agttttgggt cgataggaga aatcattatc ctttatttgc 60
 agccattcca ccccaacctat ggtttctctc tccttctctc ttctctgtca ggagagttct 120
 tgtcatgctg agcttcttca tttgtatggc atttatattc tagcactgtt ttattattgc 180
 cttctgtatc agcatgttca acattttctt caaatataac acagggtccct agagtgtctt 240
 catactcccc agcaaagaca cagctgtcca cttgcagaat gggcctctca gtgtcaatgc 300
 ccaaaacctt gcattttatt tcacattttg agaggaagtc tgaatcaata attcctgata 360
 attccaccag aaccaactgc tcctcctctt cctcgtcttc tccgctctct gggactccgc 420
 tcgtccgcgc ccgccgccat ggtcccgccg cgcctcgtag cctctttgcc 470

<210> 1916
 <211> 402
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (128)

<220>
 <221> unsure
 <222> (288)

<220>
 <221> unsure
 <222> (317)

<220>
 <221> unsure
 <222> (336)

<220>
 <221> unsure
 <222> (368)

<220>
 <221> unsure
 <222> (375)

<400> 1916
 tagatgcagc tcttttcatt ttggcatcct tttccagctc catgatgggt ctgcagggtt 60
 ctgcggcccc ccggacagtg gctctgacgg cgttactgat ggtgctgctc acatctgtgg 120
 tccagggnag ggccactcca gagaattacc ttttccaggg gacggcagga atgctacgcg 180
 tttaattggga cacagcgctt cctggagaga tacatctaca accgggagga gtctcgcgcg 240
 ttcgacaccg acgtggggga gttccggggt gtgtcggagc tggggcgncg tcctccggag 300
 tactggaaca ccagangga catcctggag gagaancggg cagtgccgga caggatgtgc 360
 agacacanct acganctggg cgggccccatg accctcacag aa 402

<210> 1917
 <211> 381
 <212> DNA
 <213> Homo sapiens

<400> 1917
 gaattcggcc aaagaggcct atgtgcatat tgctagctca tggccaacat ttgtttacag 60
 ttgcttaaat atttgctgag tttgggcaaa tgcataagacc tgtgtaaccc aagcccgtat 120
 caaagtacat gttaccacat ccccgaaagg cttcctgctt cctgccattt cctgctcagt 180
 cctgcccattg catatctccc agcactgccc ctccctgtct gcacctggag ccaggagag 240
 gaggcctcag ctgagcctgc atctctaggg aagaatcctg gtcccgggat ccacctcctt 300
 cctggcccctt gctccatgca gctcccaccc agtcccagatt tcttgacctt tgctccctgc 360
 agtcccagct cccaccggcc g 381

<210> 1918
 <211> 164
 <212> DNA
 <213> Homo sapiens

<400> 1918
 ggatgatgac gttttttacaa cagctacaga cagttcttct aattcctctc agaagagaga 60
 gcaacctact cggacaatct cctctccac atcctgtgag caccggagga tttataacct 120

gggccacctc cagactcat accccacaga ccactattct cgag

164

<210> 1919

<211> 433

<212> DNA

<213> Homo sapiens

<400> 1919

gaattcggcc aaagaggcct agacctgacc tgccatctgg agaaacctgc caaatatgat 60
gacatcaaaa agtggtgtaa gcaggcgta gagggccct caagggcac ttgggctaca 120
ctgaacacca ggttggttcc tctgacttta acagtgcac tcactcttcc actttcgatg 180
ctggggctgc cattgccctc agtgaccact ttgtcaagct catttccctg tacaacagtg 240
aatttggtca cagcaacagg gtggtggccc atatggcctc caaggagtaa gactgctcga 300
caaccagccc cagtgcagag acaagaggaa gaaagagacc ttcagcttct gggcagtccc 360
tgccatgctc agtccccac cacactggga atctccctc ttcacagttt ccatgcagac 420
cccacaactc gag 433

<210> 1920

<211> 384

<212> DNA

<213> Homo sapiens

<400> 1920

gaattcggcc aaagaggcct aggggagatc tggatggcat ctacttcgta tgactattgc 60
agagtgcctc tggagacgg ggataagcgc tgtaagcttc tgctggggat aggaattctg 120
gtgtccttga tcatcgtgat tctgggggtg cccttgatta tcttcacat caaggccaac 180
agcaggcct gccgggacgg ccttcgggca gtgatggagt gtcgcaatgt caccatctc 240
ctgcaacaag agctgaccga ggcccagaag ggctttcagg atgtggaggc ccaggccgcc 300
acctgcaacc aactgtgat ggccctaatt gcttccctgg atgcagagaa ggcccaagga 360
caaaagaaag cagtggagct cgag 384

<210> 1921

<211> 379

<212> DNA

<213> Homo sapiens

<400> 1921

gaattcggcc aaagaggcct accaaaaaag aacaattttt ttttttaaat tagccagggtg 60
tggttggtg cagtggctca cacctgtaac cctagcactt tggaggctg aggcgggcgg 120
atcacttgag gccaggagtt tgggaccagc ctggccaaca tggcaaaacc ccgtctttac 180
tgaaaaatac aaacttagcc aggcattgtg gcgcacatcc gtggtcccat ctactgggga 240
ggctgagggg ggagaattgc taaaacttgg gaggccggag gttgcggtga gccatgatgg 300
caccactgtc ctccagcatg ggcaacagag caagaacctg tctcaaaaga aaacaaaacc 360
aggtgtgatg gcaactcgag 379

<210> 1922

<211> 491

<212> DNA

<213> Homo sapiens

<400> 1922

gaattcggcc aaagaggcct aagtttatct aaatccttcc tcatcatatt tattatgtca 60
acctgtactt ccttttccct ctctctctcc ctcttttctc tccctctccc tctctctctc 120
ttccttcccc ccttccaggt accctagatg aacctaggga ggtcctggct acacagccat 180
tctgtctgag agagtctgag gactctgaga ccagccttt tgacacgcac cttgaggcct 240
atggaccttg cctgtctcca cctagggcaa taccaggaga ccaacatcca gagagcccag 300
ttcacacaga gccaatggg attcaaggca gagggaggca gactgtggat aaagtcattg 360
gtataccaaa agaaacagca gagagggtgg gccctgagag agggccattg gagagagaaa 420
ctgagaaact gctaccagaa agacagacag atgtgacagg agaggaagaa ttaaccaagg 480
gaaaactcga g 491

<210> 1923
 <211> 524
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (248)

<220>
 <221> unsure
 <222> (299)

<400> 1923
 gaattcggcc aaagaggcct atgtgggtttt gttttttctt tccctttttt gttcctccaa 60
 acaaaaaaaa aatgcaggcc gagcgcggtg gctcacgcct gtagtcccgg cactttggga 120
 ggccgaggcg ggcggatcgt gaggtcagga gatcgagacc atcctggcta acacggtgaa 180
 gccccgtctc tactaaaaat gcaaaaaatt ggctgggtgt ggtggcgggc gcccgtagtc 240
 ccagctantc aggaggctga ggcaggagaa tggcatggac ctgggaggca gacttgcant 300
 gagccaggat cacaccactg cactccagcc tgggcgaaag agtgagaatc cgtttcaaaa 360
 aaaaaaaaaa tgcattgttt ataagccctg ctgtctagaa gtattgcgtt tagccatttt 420
 gagtacagca ttaaattgag gagtggggaa gagggaaatt cacttgattt ttgctgcaca 480
 ggatatctgc caaaaataaa tgagattttc tggggctcct cgag 524

<210> 1924
 <211> 392
 <212> DNA
 <213> Homo sapiens

<400> 1924
 gaattcggcc aaagaggcct agttttgttt ccccaaaaata gaaagagatt ctctcctatt 60
 tcctgcctta cgttggcaag aggtgatcaa ggaactggtg tacagtacac tgaacacagc 120
 tataccttgg gatgaggtgt caggtgagca accaaggaca acccagctgc atgtcacact 180
 gtaaggggaga ttccatttct ttttcttttc ttttcttttt ttttcttttt tctttttttg 240
 aggtggagtc tcgttctgtc acccaggctg gagtgcagtg gcgcgatctc agcttaccgc 300
 aacctctgcc tgctgggttc aagcgattct cctgcctcag ccttctgatt agctgggatg 360
 acaggcgtgc accacgaggc caggctctcg ag 392

<210> 1925
 <211> 418
 <212> DNA
 <213> Homo sapiens

<400> 1925
 gaattcggcc aaagaggcct agactgcagc tcttttcatt ttgccatcct tttccagctc 60
 catgatggtt ctgcaggttt ctgcggcccc ccggacagtg gctctgacgg cgttactgat 120
 ggtgctgtct acatctgtgg tccagggcag ggccactcca gagaattacc ttttccaggg 180
 acggcaggaa tgctacgcgt ttaatgggac acagcgcttc ctggagagat acatctacaa 240
 ccgggaggag ttcgtgcgct tcgacagcga cgtgggggag ttccggggcg tgacggagct 300
 ggggcggcct gatgaggagt actggaacag ccagaaggac atcctggagg agaagcgggc 360
 agtgccggac aggatgtgca gacacaacta cgagctgggc gggcccatga ccctcgag 418

<210> 1926
 <211> 434
 <212> DNA
 <213> Homo sapiens

<400> 1926
 gaattcggcc aaagaggcct aagaacacca actgctgagg ctgccttggg aagaggatga 60
 tcctaaacaa agctctgctg ctggggggccc tcgctctgac caccgtgatg agccccctgtg 120

```

gaggtgaaga cattgtggct gaccacgttg cctcttgtgg tgtaaacttg taccagtttt 180
acggtccctc tggccagtac acccatgaat ttgatggaga tgagcagttc tacgtggacc 240
tggagaggaa ggagactgcc tggcgggtggc ctgagttcag caaatttggg ggttttgacc 300
cgcaggggtgc actgagaaac atggctgtgg caaaacacaa cttgaacatc atgattaaac 360
gctacaactc taccgctgct accaatgagg ttcttgaggt cacagtgttt tccaagtctc 420
acgtgacact cgag                                     434

```

<210> 1927

<211> 392

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (308)

<400> 1927

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gaattcggcc aaagaggcct actattcaaa tccttggcct atttttaaat tgaattgtct 60
ttgtattatc aagttgtaag agttctctag ataatctcga tagaagtccc ttgtcacata 120
tgcgatttgc atgtatttcc tctctttctg tgggtgtttg ttgttgttgt tgtttgtttg 180
tttttctgag acagagtctc gctctgttgc ctaggctgga gcgtagtggg gccatctcgg 240
ctcactgcaa tctctgcctc ccgggttcaa gcaattctcg tgcctcagcc tccaagtag 300
ctgggatnac aggtgcgcac caccacaccc agctcatttt tgtattttta gtagagacag 360
ggtttcgccca cttcagccag gctggctctg ag                                     392

```

<210> 1928

<211> 409

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (306)

<400> 1928

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gaattcggcc aaagaggcct actcgcgggg gtttattgta cagattattt cgtcacccag 60
gtactaagcc tagtacccaa tagttacttt ttctgatctt ctccctcctc ctaactcttc 120
accctcaagc aggccccagt gtctgttgtt tccctttgtg tccatgaatt ctcatatgat 180
gttcttcttt ctttcttctt ttcttctctt cctttctttt tctttctttt tctttcttct 240
ttctctctct cttctctctc tctctttctt tcaattgaga cactgtcgcc aaggctgcag 300
tgcagnagca ggatctcagc tcaactgcagc cctctgcctc ccagggtttca gcgagtttcc 360
tgcctcagcc tccccagtag ctgggactac aggcacacac caactcgag                                     409

```

<210> 1929

<211> 328

<212> DNA

<213> Mus musculus

<220>

<221> unsure

<222> (20)

<220>

<221> unsure

<222> (65)

<220>

<221> unsure

<222> (89)

<220>
 <221> unsure
 <222> (102)

<220>
 <221> unsure
 <222> (106)..(107)

<220>
 <221> unsure
 <222> (109)

<220>
 <221> unsure
 <222> (132)

<220>
 <221> unsure
 <222> (170)

<220>
 <221> unsure
 <222> (183)

<220>
 <221> unsure
 <222> (202)

<220>
 <221> unsure
 <222> (206)

<220>
 <221> unsure
 <222> (247)

<220>
 <221> unsure
 <222> (282)

<220>
 <221> unsure
 <222> (299)

<400> 1929
 gggatgtcaa tcatgatctn ttcatatatg ctggctatatg aaattgggtct cggatgaagta 60
 atggngctgtc tgtcaagcat gacatcctng cctgtgttaa gnttgnngnt gctctcctgg 120
 gatgttgatc gngacgtctt gtccgggatt gagaagcttc tgttgctctn ctgggatgtc 180
 atncatgatc tctccatata tncatgctat agaaattggg ctctgtgaag aaatagtgtg 240
 tccaaancct tggtagagc cccctgggga gggtagcttt gnagaaccag aagttaganc 300
 ttgtgaagaa gaagaaagta ggctcgag 328

<210> 1930
 <211> 378
 <212> DNA
 <213> Mus musculus

<400> 1930
 gaattcggcc aaagaggcct acactctctt gtagtaacag aagctacctg ctataataaa 60
 gacctcaaca ctgctgacca tgatcagccc agcctggagc ctcttctca tcgggactaa 120

```

aattgggctg ttcttccaag tggcacctct gtcagttgtg gctaaatcct gtccatctgt 180
atgtcgctgt gacgcagget tcatttactg taacgatcgc tctctgacat ccattccagt 240
gggaattccg gaggatgcta caacactcta ccttcagaac aaccaaataa acaatgttgg 300
gattccttcc gatttgaaga acttgctgaa agtacaaaga atatacctat accacaacag 360
tttagatgaa ttctcgag 378

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<210> 1931
 <211> 272
 <212> DNA
 <213> Mus musculus

<220>
 <221> unsure
 <222> (184)

<220>
 <221> unsure
 <222> (261)

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<400> 1931
cccactcccg cttcttatca agctgcttcc ttttctccag cctctcctgc tttagcttct 60
cttctctcct ctccagctct ttgtttttgg tgaggatggt ggctttgctt ttaggagtct 120
ttttgttaag gatttttggc atggcatctg cccagcctga attggtccca gcactcgact 180
ctgnggcgtc ttcattgtct tcctcacagg attcaacatt gtctcactg tctgcttctg 240
cagctccatc atctgagtgg ncccatctcg ag 272

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<210> 1932
 <211> 391
 <212> DNA
 <213> Mus musculus

<220>
 <221> unsure
 <222> (18)..(19)

<220>
 <221> unsure
 <222> (21)

<220>
 <221> unsure
 <222> (39)

<220>
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<220>
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<220>
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 <222> (66)

<220>
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<221> unsure
<222> (115)

<220>
<221> unsure
<222> (142)

<220>
<221> unsure
<222> (151)

<220>
<221> unsure
<222> (170)

<220>
<221> unsure
<222> (184)

<220>
<221> unsure
<222> (202)

<220>
<221> unsure
<222> (208)

<220>
<221> unsure
<222> (213)

<220>
<221> unsure
<222> (224)

<220>
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<222> (228)

<220>
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<222> (297)

<220>
<221> unsure
<222> (299)

<220>
<221> unsure
<222> (325)

<220>
<221> unsure
<222> (358)

<220>
<221> unsure
<222> (376)

<400> 1932

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aacagctcta tgtatgggnc nactactttg ttgtgcgcna tagnctggag tntggacccc 60
cagatnccag tgntggccca gacacttccc cgctctctag taccaccacc acagncggg 120
ccacacccct caccagaaca gntcgcctg nagacaccac tccactccgn cggggacccc 180
tcancacaca cccagtgggt gncatcanc agntgggacc tganctgnet ccagccacag 240
ctccagcacc cagtaccga aggcctccag ccccaatct gtatgtgtcc cctgagntnc 300
ttctgtgaac ccagagaggt ccggnggggc cagtggccag ctaccaaca gggatgntg 360
gtggagagac ctggcnccaa gggaactcga g                                     391

```

<210> 1933

<211> 421

<212> DNA

<213> Mus musculus

<400> 1933

```

tagaaaaaaa aaaacaaacc tttcttactc cttaaagtga gagattcccc cccaccccg 60
ccccagaatc gtatatat atctccacgt tgggaacgcg ttgcattttc ttttttaaag 120
gaatccagc cagggacgtt tttctattgg gcattaactt tcgactgctt tgcacaagtt 180
tcgtattaaa aacaactcta cctgaccgct ctgagaatta ctagtcttct ttttatatat 240
attttttctt acttttaaata acaacatcaa cgtttcttcc ttttaaaaac atgcactact 300
gtgtgctgag cactttttg ctccctgcac tgggtccggg ggcgctcagt ctgttctacc 360
tgcagcacc tcgacatgga tcagtattat cgcaagagga tcgaggccat cccgcgggca 420
a                                     421

```

<210> 1934

<211> 439

<212> DNA

<213> Mus musculus

<220>

<221> unsure

<222> (424)

<220>

<221> unsure

<222> (432)

<400> 1934

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tagcagagct ttcatatcca cgatgcgttt tctggccgcc acgatccctgc tgcctggcgct 60
ggctcgctgcc agccaggcgg agcccctgca cttcaaggac tgcggctcta aggtgggagt 120
tataaaggag gtgaatgtga gcccatgtcc caccgatccc tgtagctgtt acaaaggcca 180
gtcctacagt gtcaacatca cctttaccag cggcactcag tcccagaaca gcacggcctt 240
gggccacggc atcctggaag ggatccgggt ccccttccct attcctgagc ctgacgggtg 300
taagagtgga atcaactgcc ccatccagaa agacaagggt tacagctacc tgaataagct 360
tccggtgaag aatgaatacc cctctataaa actggtggtg gtatggtgac atgaagtga 420
tttngagttc tngctatat                                     439

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<210> 1935

<211> 374

<212> DNA

<213> Mus musculus

<220>

<221> unsure

<222> (139)

<400> 1935

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atgagtggaa agaatttgag caaagagagg ttgattacag cggattaaga gttcaggcaa 60
tgcaaataag tgaaggaa gatgatgata atgagaagag agaagatcca ggagataatt 120
gggaagaagg tggaggtgnc agtggagcag aaaaatcttc aggtccctgg aataaaaccg 180
ctccggtaca agcgcctcct gctccagtaa cagttacaga aaccccgag ccagcaatgc 240

```

ccagtgggtg attcaggcct cctggggcaa ggctaaccac aacaaggaaa acgccacaag 300
gaccaccaga aatatacagt gacacgcagt tcccatccct gcagtccact gccaagcatg 360
tagatagcct cgag 374

<210> 1936

<211> 364

<212> DNA

<213> Mus musculus

<400> 1936

tatgaaggaa gaacccatgg gactcccaag gcggctgctg ctgctgctgt tgctggcgac 60
tacctgtgtc ccagcctccc agggcctgca gtgcatgcag tgtgagagta accagagctg 120
cctggtagag gagtgtgtc tgggccagga cctctgcagg actaccgtgc ttcgggaatg 180
gcaagatgat agagagctgg aggtggtgac aagaggctgt gcccacagcg aaaagaccaa 240
caggaccatg agttaccgca tgggctccat gatcatcagc ctgacagaga ccgtgtgctg 300
cacaacacct tgcaacaggc ccagaccgg agcccgaggc cgtgctttcc cccagggccg 360
ttac 364

<210> 1937

<211> 407

<212> DNA

<213> Mus musculus

<400> 1937

tagactgcct cctctcgcca taccaagccc tgagcacact cattgctggg tcccttcct 60
ccaagtttcc cctctgctcg gattgatact tagaatttct tacctacgtc atagctgctt 120
tctaaaaaca gaatttttta acacctcctg tttgttctct tgggtagat taagggtggg 180
aaatgtgggc aagaaaagag atgacaaact gctctgctga agtttcatgg aaatctgact 240
tgagtgtttt tctctccatt tgctgtgttt atgtgaacag tgtgacacca tcaccaccac 300
aggctcgggt ctgtcctccc catatgctac ctgaagatgg aggctaattc ttcctctgct 360
cccgtggcat tttgtcgctt atccagtctt ctactcgtag ggcaaca 407

<210> 1938

<211> 300

<212> DNA

<213> Mus musculus

<400> 1938

taaagagctg cagtgttcgc gcttggttagc tgggtgcatcg gactcagctg gctttgtgtc 60
cctgaggctc accgaaaaaa actttctcag cctctgact ccagagagag agagagagag 120
gtactttttg tgggtaccga ctttgacccc tgcagaggct gagcgatggc gtctatggga 180
ctacaggctc tgggaatctc cttggcagtc ctgggctggc tggggatcat cctgagttgt 240
gcgctcccca tgtggcgggt gaccgccttc atcggcagca acatcgtcac ggcacagaca 300

<210> 1939

<211> 340

<212> DNA

<213> Mus musculus

<220>

<221> unsure

<222> (4)

<220>

<221> unsure

<222> (29)

<220>

<221> unsure

<222> (114)

<220>
 <221> unsure
 <222> (118)

<220>
 <221> unsure
 <222> (143)

<220>
 <221> unsure
 <222> (181)

<220>
 <221> unsure
 <222> (267)

<220>
 <221> unsure
 <222> (321)

<400> 1939
 tgtngctctt ctgggatgtc aatcatganc ttttcatata tgctggctat agaaattggt 60
 ctcggtgaag taatggtctg tctgtcaagc atgacatcct agcctgtgtt aagnttgngt 120
 tgctctctcg ggatgttgat cngnacgtct tgcccggtat tgagaagctt ctgttgctct 180
 nctgggatgt cacacatgat ctcttcatat atgctggcta tagaaattgg gctctgtgaa 240
 gaaatagtgt gtccaaaacc ttggtancag cccccctgag gagggtagct ttgaagaacc 300
 agaagttaga tcttgtgtag nagaagaaag taggctcgag 340

<210> 1940
 <211> 523
 <212> DNA
 <213> Mus musculus

<220>
 <221> unsure
 <222> (12)

<220>
 <221> unsure
 <222> (42)

<220>
 <221> unsure
 <222> (87)

<220>
 <221> unsure
 <222> (158)

<220>
 <221> unsure
 <222> (412)

<220>
 <221> unsure
 <222> (450)

<220>
 <221> unsure
 <222> (465)

<220>
 <221> unsure
 <222> (468)

<220>
 <221> unsure
 <222> (471)

<220>
 <221> unsure
 <222> (473)

<220>
 <221> unsure
 <222> (500)

<220>
 <221> unsure
 <222> (509)..(510)

<400> 1940
 ctccgagtcgag gncgacgatt tagatgtaga gtctgacttc gncgatgccca gtatcaacag 60
 ctattctgtt tcggatggtt ccaccanccg cagtagtcgg agccgtaaga aactccggac 120
 cgctaaaaag aaaaagaaag gcgaggagga ggtgactnct gtggatggtt atgagacaga 180
 ccaccaggac tattgcgagg tgtgccagca agggggagag atcatcctgt gtgatacctg 240
 tccccgagcc taccatattg tgtgcctgga cccagacatg gagaaggccc cggagggcaa 300
 gtggagctgt cccactgtg agaaggaggg gatccagtgg gaagctaagg aggacaattc 360
 tgagggtgag gagattcttg aagaagtcgg gggggaccag aagaggagga tnaccatcac 420
 atggaattct gtcgcgtctg caaggacggn ggggagctcc tgtgntgnga nanaaaccct 480
 tcttccaacc acaaccactn tctaggccnn gtggggcgaa ttc 523

<210> 1941
 <211> 267
 <212> DNA
 <213> Homo sapiens

<400> 1941
 gaattcggcc aaagaggcct aatggctcgc agacactgct tctcctactg gttactggta 60
 tgctggttgg tggtaactgt ggcagaagga caagaagagg tatttacgct tcctggagat 120
 tcacaaaata atgcggacgc taccgactgc cagatcttta cactcacccc tccacctgcc 180
 ccgaggagtc cggtcacaag ggcccagccc atcacaaaga caccaggtg tcccttccat 240
 tttttccac gaaggcccag actcgag 267

<210> 1942
 <211> 306
 <212> DNA
 <213> Homo sapiens

<400> 1942
 gaattcggcc ttcattggcct agcatgaagg aagaggtttg ggatatgagc aggtatgtga 60
 aataatgaat cagtatttct gtcaacttta gagagacctg ctgaaatccc caaattcact 120
 gtgattctcc aggaagtta cagggcctga gctaatagaca tggccaacag caagcctgca 180
 agatgaaagc agttttattaa tactcatacc attgaggatt ccaggaagga aagcagactc 240
 accagctgga ggtgggtggt ccagaacaac aggggaatgg caggaaacaa aagggaaaaa 300
 ctcgag 306

<210> 1943
 <211> 386
 <212> DNA
 <213> Homo sapiens

<400> 1943

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gaattcggcc ttcattggcct aacttcctct ttggatctca atagtcattgt ctcccttttc 60
caaaactatag tagaataatta agtcctaaaag gatttaattc taggagagag agtagttata 120
atggctgata tttaacagaa agtgatcaag agctatctcc cactgctagt gagaaaacta 180
ataactaaaa gaatgggttg ctgatgagca ggtgactgac aggatcaaca aagtaacaga 240
aagtaaaacc taacacagga agaattctag gattttgtga ggtaggccaa aaggtaaaagg 300
ccaggcagtt attatagtca agagtgccaa gagtgtagtc agagtcagtc agaaaaacaa 360
actcagggtta acaaggggca. ctcgag 386

```

<210> 1944

<211> 368

<212> DNA

<213> Homo sapiens

<400> 1944

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gaattcggcc ttcattggcct acagtcttcg ttctcttcgt ttttcagttt tgaaagtttc 60
tggtgatata cctcaaaaat cagagattct ttactctgat ttttatctat taatagacca 120
catacagtcct attaatagtc ccattaaagg cattcttcac ctcttttgca gtgtttttta 180
atctctagca tttctttttg gttcttcctt aggatttcca tctctttgct tacattaccc 240
actattgttg catgctgtct actttatcca ttagcgctt taacgtgtta atcatagttg 300
ttttaaatct cctgtctgtg tggtacatct ctgccatgct tgggtctgat gctcacccca 360
atctcgag 368

```

<210> 1945

<211> 273

<212> DNA

<213> Homo sapiens

<400> 1945

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gaattcggcc ttcattggcct agtggtagaa cttaagatt tgaagcttta acgagagtca 60
gctagtttgc agtgattaga gacttgtaag ttaattgata tacacacttt tgcctatatt 120
tattaagttt ctacggggaa ttgtagatta ttccagagtg cagttttagg tcgtggatca 180
gatttaagtt ggaagtaaat aatgggtatt actagaattt tttgtttttg tttgtttttg 240
agaaggagtc ttctctgac acccaagctc gag 273

```

<210> 1946

<211> 370

<212> DNA

<213> Homo sapiens

<400> 1946

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gaattcgcgg ccgcgtcgac ctacgcgaat ctactgggaa aacaagatag ttcggataga 60
gaaggacaca gcagaggaaa ttaacaacat gaagaccaag tttaaagaaa caattgagaa 120
gtgtgataat ctacagcaca aactaaatga tctcctaaaa gaaaagcagt ctgtggaaag 180
aaagtgcact cagctaaaca caaaagtggc caaactcacc aacgagctca aagaggagca 240
ggaaatgaac aagtgtttgc gagccaacca agtcctctcg cagaacaagc taaaagagga 300
ggagagggtg ctgaaggaga cctgtgacca aaaagatctg cagatcaccg agatccagga 360
gcattctcgag 370

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<210> 1947

<211> 822

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (155)

<220>

<221> unsure

<222> (231)

<220>

<221> unsure

<222> (270)

<400> 1947

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gaattcgcgg ccgcgtcgac gggcaatgtc ctgcgtgtgc tgggccagcg tacgattcag 60
ctggctccaca tggctccaca ggccctctct gggcctcagc ggctcagtg gcaagctgtc 120
caggcccgcg gccagcagcg ccagcctcct gcacncaccc tccacttggt ccaccccgcg 180
gtcaaaagtgt cccactgtgt gctgaagttt ctgggctgtg tcctggcagc ngctcacccc 240
actggccacc ttggccacac cagccttgan ttgctccagc tccccacgca ggttcaggac 300
ctgcctgtgg ccagcctgaa gcctggagcc ttggctgtgt acctgtcctt ggatggcctg 360
gacttcggct tcacacttgc gttcccgtct atccaggagc gtgttgccag ccaagaaggc 420
atcagagtac tggctgacag agtcactgag gcctgtgagc gacttgctca ctgagttcag 480
attgaccttg agcagagtga tctgccttg aagtgtgctg ccggtccctt ttgccagctg 540
tccttgagac tcggccacag tgccattgag ctgctggagc agtgctgcgt ggctggccac 600
ctggcgtagg agggcctcgc tccggctctg ccaggccttc acctctgcca cgaggctgtc 660
caggatggct gaggtgtgtc tcggggtgca cgaagtctcc agtgagacca accgttgctc 720
tagcacagcc agctctgtct gtacaagggg ccgagctgac ctgcccggag aggcgctgtc 780
atggcttagc tccccagcca atgtgtctag gcgtcctctg ag 822

```

<210> 1948

<211> 774

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (263)

<400> 1948

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gaattcgcgg ccgcgtcgac aggagtttga aaaacaagat gaattaaagc gatctgccat 60
gagagcagta gcagcactgc taaccattcc agaagcagag aagagtccac tgatgagtga 120
attccagtca cagatcagtt ctaaccctga gctggcggtc atctttgaaa gtatccagaa 180
agattcatca tctactaact tggaatcaat ggacactagt tagatgtttg ttcaccatgg 240
ggaccattac atatgaccat acnatgcact gaattgacag gttaatcata agacatggaa 300
agagaagtgt ctaaaagctt caaaatgttc cacttttttt tccttcatgg agactgtttg 360
tttggctttc ttccattgtc gttttttagt catttatctc agaaatgtgt atttccataa 420
tccagaggtt gtaaaaccac tagtgtttta gtggttacag caacatttga aatggaaact 480
aaaagttagg attttatgga gtatggagat aggggtccagt atctatttac cctgtaatgt 540
ttaggattaa aatgttaaaa ttttgtgacc atgaatttct ttcttttata aatttttctc 600
tttaaaaatc aaaaatcttg caaaacaaaa accatgtttc tttttcttgt ataacttttt 660
gttttcagca acataaattg atttttagct ggcagacaag aatatccata taagatttgt 720
taaccatttc agagagtttg gcaattttta aaagataata aggtatcact cgag 774

```

<210> 1949

<211> 404

<212> DNA

<213> Homo sapiens

<400> 1949

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gaattcgcgg ccgcgtcgac caggaaacaa tggagaaact gacttggctg gcatctgaaa 60
ggcgcatgag tcaggagggt gagtctgaag aagagaattc tcaggaggag aactctgagc 120
cagaagaaga ggaggaagaa gaagcagaag gaatggaaag cctgcagaaa gaggatgaaa 180
tgacggatga agcagttgga gactctgctg agaagcctcc tacttttgct tcacctgaga 240
ctgctccaga agtggagacc agcagaactc caccaggaga gagcatcaaa gctgctggaa 300
aaggccggaa caatcatcga gctcgcaaca agcggggaag tcgggctcgg gccagcaagg 360
acacctccaa gctgctgttg ctgtatgatg aggacattct cgag 404

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<210> 1950
 <211> 630
 <212> DNA
 <213> Homo sapiens

<400> 1950
 gaattcgcgg ccgcgtcgac tgagtatatt ccagggtacaa cctccttagg catgtctgtt 60
 tttaacctaa gcaacgccat tatgggcagt gggatttttg gactcgcctt tgccctggca 120
 aacactggaa tcctactttt tctgggtact ttgacttcag tgacattgct gtctatatat 180
 tcaataaacc tcctattgat ctgttcaaaa gaaacaggct gcattggtga tgaaaagctg 240
 ggggaacaag tctttggcac cacagggaag ttcgtaaatc ttggagccac ctctctacag 300
 aacactggag caatgctgag ctacctcttc atcgtaaaaa atgaactacc ctctgccata 360
 aagtttctaa tgggaaagga agagacattt tcagcctggg acgtggatgg ccgcgttctg 420
 gtggtgatag ttaccttttg cataattctc cctctgtgtc tcttgaagaa cttagggtat 480
 cttggctata ctagtggatt ttctttgagc tgtatggttt ttttccctaa tgtggttatt 540
 tacaagaaat ttcaaattcc ctgcattgtt ccagagctaa attcaacaat aagtgtctat 600
 tcaacaaatg ctgacacgtg tacgctcgag 630

<210> 1951
 <211> 457
 <212> DNA
 <213> Homo sapiens

<400> 1951
 gaattcgcgg ccgcgtcgac caaaaactga tagtatgcca gcaatgcagt tagcttctaa 60
 agatcgagtt agtgaaagat cttcagctgg gccacataaa acagattgcc tcaaactagc 120
 agaagccgga gaaactggaa gaatcatttt gccaaatgtg aattcagaca gtgttcacac 180
 aaaaatctgaa aaaaactttc aggtgtgttc acagggcagt gttcccagtt cagtcatgtc 240
 tgctgtaaat acgatgtgta ataccaaaac ggatgtaatc acatctgctg ccgatactac 300
 cagtgtttcc agctgggggtg gttcagaagt aatttctctt ttatcaaata ccatttttggc 360
 ctctacatca tcagaatgtg tatcttcaaa aagtgtcagt cagccagtgg ctcaaaaaca 420
 agaatgcaag gtcagcacca cagcaccaga gctcgag 457

<210> 1952
 <211> 742
 <212> DNA
 <213> Homo sapiens

<400> 1952
 gaattcgcgg ccgcgtcgac tgggtggatga aatgacatag gcttactagt cgctgaataa 60
 tatccaattg ctctcttaaa tcgaataact ttgtcatctg ttctagactg tgaatgctgg 120
 aaaaatctct tagctatggc atccaagtca gaggtgtcct gaatgttgcg tacatagtca 180
 gcaacggctt tgatcactac gtcgcaaggt ggcaagacca gctgggtggc ccggaccttt 240
 agtgaggcta gtggatgttc tggaccaagt aaactccaat gaaaggaagc cagatcttca 300
 tcaggcagaa tgtgatttcc taagagagca gcaaaaatag gaaaacgatt tggattcagg 360
 tccagttgct tggcaacttc atgcatcaga tattggcttg tggtagactt ttccccgttc 420
 cggctcagtt ttagggtcat ggcaactgaaa tagtagggga tgttgacag tgcataatca 480
 gagtcatacg caaccaagcc atggaaacca ttctctctgc agaaaccaat cacttcttga 540
 tgggtgatcct caatgctctg tgcaaccttg acgtggaagc ggatgagcgc caggcggatg 600
 cagtgggcca tgcagacggg cggcaggaac cagacctttg gcggcggggt gcccttgttc 660
 tggacatggc tgacgattgc tgtgccgttt ggcgctcgtt gccctgccgc ttgaccact 720
 cgtgcagccg ggccttctcg ag 742

<210> 1953
 <211> 222
 <212> DNA
 <213> Homo sapiens

<400> 1953
 gaattcgcgg ccgcgtcgac gtggctgttg ggaatgttg tttcttgaa gaacgtgctc 60

agcgcggtct cgaactgcc a gtggggccgc tgcagcagct gcttcgcctg gtcggccgcg 120
 cagcccgcgg ccagcacgaa ctgggtgatc atgacctggt gccgcagctc gtccatgttc 180
 accgacatgg cgccggcgcg cgccggggccc ggcgacctcg ag 222

<210> 1954

<211> 527

<212> DNA

<213> Homo sapiens

<400> 1954

gaattcgcgg ccgcgtcgac gtgggattac aagcgtgagc taccacaccc ggccaattta 60
 tatttttagt agagatgggg tttggccatg ttgaccaggc tggctctgac ctcaggcaat 120
 ctgcccgcct cagcctccca aagtgtctgg attacaggcc tgagtcactg cgcgcagcct 180
 gagatgtttt ttagatacac aaagtagaga tggtcagtga atactttgat gtgggtctac 240
 agtcagagaa gagttgtctg ctgaagatgt aaatttgta gcatgttgat aggatttatt 300
 ttttattctt tttcttaaga gatggggctt cactctgtca ctgaggctgg agtgccagtg 360
 cacaatcata gctcagtga gcctccaact cctagagtca agtgatcctc ctgcctaagc 420
 ttccagagtc gctggaatta caggcacgcc accatgcctg gctaattttt aaattttttg 480
 tagagggaaa agagggaaaa gaacaggccc taggactgag gctcgag 527

<210> 1955

<211> 530

<212> DNA

<213> Homo sapiens

<400> 1955

gaattcgcgg ccgcgtcgac aaggcgaaga atggcaaagg ctccgcagtc tcctggcccc 60
 gctcctcttc cgccctcaag cgcccgcccg ctacgcgga accctgaaca acgtagtctg 120
 cgaccttggt cgccgtctga ggccgcagcg gggacgtggc acggggccgc ccgcctgggt 180
 tcgggacgtg cggggggaat tttacaagtt cggactggaa ggtgagtcctc aggacagagc 240
 tgggcagggc tcgggggcgc cctaccagag cctcccggaa ccctgacggc gccccctccc 300
 gacaaggcat cgccgcggtt ctgctcggct cgccgttggg ctgcctggag gctcaagtgc 360
 caccgcacac ggagaccttc atccgcgctg tgggctcggg gtttgtgtcc acgctgttga 420
 ccatggcgat gcccactgg ctgcgccacc ttgtgcctgg gccctggggc cgcctctgcc 480
 gagactggga ccagatgttt gcatttgctc agaggcacgt gggctctcgag 530

<210> 1956

<211> 518

<212> DNA

<213> Homo sapiens

<400> 1956

gaattcgcgg ccgcgtcgac caaatcaaag aagcatcgtg tcagaaacag gagaaaattg 60
 aagtcatgtc tttgggtcga tgtcaagata acacaactac aactactaag tctgaagatg 120
 ggcatattgc aagaacagat tatgcagaga atgctaacaa attagaagaa agtgccagag 180
 aacaccacat acctgttccg gaacattaca atggcttctg catgcatggg aagtgtgagc 240
 attctatcaa tatgcaggag ccattcttga ggtgtgatgc tggttatact ggacaacact 300
 gtgaaaaaaaa ggactacagt gttctatacg ttgttcccgg tcctgtacga tttcagtatg 360
 tcttaatcgc agctgtgatt ggaacaattc agattgtctg catctgtgtg gtggctctct 420
 gcatcacaag gaaatgcccc agaagcaaca gaattcacag acagaagcaa aatacagggc 480
 actacagttc agacaatata acaggggcgt ccctcgag 518

<210> 1957

<211> 189

<212> DNA

<213> Homo sapiens

<400> 1957

gaattcggcc aaagaggcct agggagctga atgaatgaat tagattttggg gttttttgtt 60
 gttttttgtt tgttttttga gatggagtgt tgctcttgtt gccaggatg gattgcagtg 120

gcgcgatctc agctcactgc aagctctgcc tcccagggtc acgccattct cctgccccag 180
cacctcgag 189

<210> 1958
<211> 134
<212> DNA
<213> Homo sapiens

<400> 1958
gcctaaaccg tcgattgaat tctagacctg cctcgaggag cctctgagca ttttcctttc 60
cctcactgct ttagaaacct ctattcagat ttttcatatt aatgattctt ttgcttttaa 120
cccaactcct cgag 134

<210> 1959
<211> 126
<212> DNA
<213> Homo sapiens

<400> 1959
gaattcggcc aaagaggcct ctttggccga attcggccaa agaggcctag tgaagtggac 60
caaaggctta gaattcaatc gacggttttag gccaaaccgt cgattgaatt ctgacctgc 120
ctcgag 126

<210> 1960
<211> 134
<212> DNA
<213> Homo sapiens

<400> 1960
gaattcggcc aaagaggcct agacctatat aaaattagaa agaaaaaagg agacactata 60
actgatccca cagaaatata aacttattag acactattat gaacttaaac attttctcca 120
agtttctccc tata 134

<210> 1961
<211> 309
<212> DNA
<213> Homo sapiens

<400> 1961
gaattcggcc aaagaggcct agtcttgatc cccacacatc tttccagcct cccctccac 60
tccactcctt gctcctcctt ccacctcccc atcctcttgt ctccccctcc ctctgaatcc 120
agcccagcgg ggcttctcct gcttccatca catcacagaa gtacctcctg cttctgggtt 180
taattagagc cttccccgat tacattttcc tctgaatttt ttccctatcta catttgatct 240
gtcatgttta aaccccttac ttctaaggga acttctctaa tctcttatcc tcaccccaa 300
atactcgag 309

<210> 1962
<211> 361
<212> DNA
<213> Homo sapiens

<400> 1962
gaattcggcc aaagaggcct agcatgaggg tctgtttaga gagcctcagt attaggaatc 60
agaggtggca gaggtagcct ttttaattgg ctgttataag catacaagat aatggtaagt 120
tttaagataa gtcttaaac tgagctcaaa agtttagagaa cagaaatagg agaacaagaa 180
aaataaagtt gccctttcag tttaaccttt taacagtagc agtggtttgtc agttttcttt 240
tggaagtgtt tatctacctg cagtgtttgg taagaaaaat aacctgggag acagagttag 300
aatccgtctc caaaaaaaaa gaaaaaaaaa aagaaaaaga accattccta cccctctcga 360
g 361

<210> 1963
 <211> 442
 <212> DNA
 <213> Homo sapiens

<400> 1963
 gaattcggcc aaagagccta gtggagcttt tggagttttt catagttggc attcagcttc 60
 ttggatgtgt agatttatat cttttaccag atttggaaag gtttggccat tatttcttca 120
 aatagtcttt ctgccccttt ctctccttct ggaactccca taatgtgtat gttgggtctgg 180
 ttgatgccac agtttccctta gtctctgttc actttttcat cttttttctt tctgttcttc 240
 acacttgata atttcatttg tccatcttcc aagttcactg gtttttttcc ctctgcctgt 300
 tcagatctgc tgttgaagcc ttctagtga aatttaactt cagctattgt acttttcagt 360
 gctagaattt ctatttgggt ctatttttca tctctttcat gatatttttt ctttgtaag 420
 tcatcatctt cctggtctcg ag 442

<210> 1964
 <211> 122
 <212> DNA
 <213> Homo sapiens

<400> 1964
 gaattcggcc aaagaggcct agtctatgct tgaaattttt catgataaca agttttttgg 60
 gatttttttt gttttttaat taaaaaaca cctgttcacc ctatgtttct tcaaacactcg 120
 ag 122

<210> 1965
 <211> 330
 <212> DNA
 <213> Homo sapiens

<400> 1965
 gaattcggca aagaggctac cgggacgccg tgaggcggaa gctgtgtatg gcgggaggct 60
 gtggcggtcc ctrggtgggg aagctgttgc tgttgctaga cgacgggaac tagctctcgt 120
 cacttcttca gcccgccgtc tgccacttcc tctagccgga acctgggggc cgggagccgg 180
 ggtaggcaca gagttgtcct cggaggtcca ggacagcggc cagcccggcg gcgggagtca 240
 gggccacgcc acctgcaggg aagaacccga gtcgaagcgg gaagatggct gcagacaagc 300
 ctgcagatca gggagcagga aacactcgag 330

<210> 1966
 <211> 122
 <212> DNA
 <213> Homo sapiens

<400> 1966
 gaattcgcgg ccgcgtcgac agaatgcttc tttctgacac actgggtgtg ttaaattgct 60
 atcagatcct tcttttaaga tatttggcca tcaaaattca ctatgaatcc ccacagctcg 120
 ag 122

<210> 1967
 <211> 110
 <212> DNA
 <213> Homo sapiens

<400> 1967
 gaattcgcgg ccgcgtcgac ctctgttatt tggttgggtc tatacttgta ccgtaaacaa 60
 gttttaaaac ggtgatgata ttaacaaaga aaatcccggc cattctcgag 110

<210> 1968
 <211> 259
 <212> DNA

<213> Homo sapiens

<400> 1968

```
gaattcgcgg ccgcgtcgac caaaataagc catgctgctt tgcacacaca ctgccttct 60
tttgtacttt tcttctggat gggcttggcc aaaacaggct caggccaaag acctcccaag 120
ctgtatgtac ttccagtatc ctgaaacagt gtttgggtgac ataatgcca gggtaaacaa 180
gcctgattta ggcactgctt tatccagggg cttcacccat gaaattaata aaacttatct 240
gagtcacttg aaactcgag 259
```

<210> 1969

<211> 218

<212> DNA

<213> Homo sapiens

<400> 1969

```
gaattcgcgg ccgcgtcgac gtgactctac tagaagagga ctcttagaag gtttctctcg 60
gactttactc catgtacctt ttccctttgc tgattttgct ttgtatcctt tccactgcaa 120
tacatttttag ccatgagttc aatgaacata tgcagagtcc tgggaagtcac ctctcgttag 180
ccaccaaacc tggaggtggg cctgcggatc ctctcgag 218
```

<210> 1970

<211> 237

<212> DNA

<213> Homo sapiens

<400> 1970

```
gaattcgcgg ccgcgtcgac aatcaaggca attaggatat tcatctcaaa cgtttatcat 60
ttcttttgtt tgggaacatt ccaaattctt tagctatttt gaaatatata ataaattatc 120
attaactatc atcacccat gctgctatta aacactagaa cttattttatt ctctctgact 180
gtatttttgt acctattatc caccctctct tcatccccac cccctactca actcgag 237
```

<210> 1971

<211> 265

<212> DNA

<213> Homo sapiens

<400> 1971

```
gaattcgcgg ccgcgtcgac ggggagttgt ataggaactt acctagataa atttgtttat 60
tctgtgttcc agaaaccaac ctttgatcat tcacacacag gactgctgtc tacttgggat 120
gttgacaatg ttatttggcc acaaattgtg tttgctccaa gcctttgtca ttaaatttgt 180
gctaaataaa tgtgagggcc accagcttaa ggggactgct aactctcttc ggcccctagt 240
gctggcagtc cctggccgc tcgag 265
```

<210> 1972

<211> 326

<212> DNA

<213> Homo sapiens

<400> 1972

```
gaattcgcgg ccgcgtcgac atgggctaca acagtgcag tcccatgggt tccatgacct 60
ctttcatcag tgccttcag agtacagact ggctctgtta tggggagctt tcccatgact 120
gtgacggacc cataactgac ttgaattctg atcagtacca gtacatgaat ggtaaaaaca 180
aacattctgt tcgaagattg gaccagaaat actggaagac tatactgagt tgtatatatg 240
tttttatagt atttggattt acatctttca ttatgggtat agtccatgag cgagtgcctg 300
acatgcagac caatccacca ctcgag 326
```

<210> 1973

<211> 188

<212> DNA

<213> Homo sapiens

<400> 1973

```

gaattcgcgg ccgcgctcgac cctgaaatga gattatcttt cattgtgttt tcttctcaag 60
caactattat ttgacctctg tctccagtta atggcaaaat cagtaaaggc ttggaggatt 120
taaaacgtgt tagtccagta ggagagacat atatccatga aggactaaag ctagcgaatg 180
aactcgag                                     188

```

<210> 1974

<211> 196

<212> DNA

<213> Homo sapiens

<400> 1974

```

gaattcgcgg ccgcgctcgac agtatcttta ggtcagcttc ttaatgtttc aggggttttt 60
gtttcttttt cttttttttt tttttaactt aacaaaatca aatgctttca aacagggccc 120
gactcttaat tgaataggag atgatggaag ggggagagct atttcacaga atcagccagc 180
accggcacaa ctcgag                                     196

```

<210> 1975

<211> 252

<212> DNA

<213> Homo sapiens

<400> 1975

```

gaattcgcgg ccgcgctcgac cattcctcat ctacactctg aagctctgaa gtctttgacc 60
atgcaagttt taaatagcat ggcagcattt attgcccttc catcaatctt gcaaagaatc 120
ttacaggatc cagtttatgg aaaaggaaaa cttggagaaa tccagggact tatcttgga 180
atgttagata cctttaacta tgaacaaacc ctgctggaaa caacaaccag ccttctaaac 240
caagaactcg ag                                     252

```

<210> 1976

<211> 174

<212> DNA

<213> Homo sapiens

<400> 1976

```

gaattcgcgg ccgcgctcgac ggtttgacct gagctccctt cctcacaccc tgtatgcatg 60
ttctgtctct gggctctctg ctgttgtgtt ccgctgtcgt tttgcttgct gactccacag 120
agagtttggt tcctgggtgc cacaagagat gcacgtcaag gtcaggagct cgag 174

```

<210> 1977

<211> 191

<212> DNA

<213> Homo sapiens

<400> 1977

```

gaattcgcgg ccgcgctcgac atgctgttga gtgttattca tgagaatgca gggcactttc 60
tccttctcct tggagcagta ggaggcaaag tccttggaaga tgatgtctgc atactggagg 120
agcacattac tgatgggtctt ggcaaagcgc ctcatgtagt gccccacgat ctgaggggtcg 180
ggacactcga g                                     191

```

<210> 1978

<211> 196

<212> DNA

<213> Homo sapiens

<400> 1978

```

gaattcgcgg ccgcgctcgac gttgcaaaga aaagatctga gatttgcttg aaaacttcca 60
gtgaggatac acattacaag gtgcccattt tcattttaat aactcttttt aaaaaattat 120
cttttctctg attaaaatct cccctttccaa aatgcctagg ccttctaaaa caagtcttta 180
tcattctgata ctcgag                                     196

```

<210> 1979

<211> 344

<212> DNA

<213> Homo sapiens

<400> 1979

```

gaattcgcgg cgcgctcgac ttcttttttc catttttttc caatttggag tcactgaaaa 60
ctaagctgtg ctttcataaa gccctgcaaa ctgaatctag acaacttcag aagaaaaata 120
acagcaacct atttcatatac ataagccact ttcatactg cctaccgatg tatggacttc 180
agagtaaatgt ggcttatagc aattttccag gattgttctt ttgtttgttg ttgtttctcc 240
ttctccccc tattttgtct ttatgggaca tgacacttca caaccttcta aaaatgagtt 300
ttcctaataa ctcaggacct actcgtctag aaataaacct cgag 344

```

<210> 1980

<211> 616

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (32)

<220>

<221> unsure

<222> (46)

<400> 1980

```

gaattcgcgg cgcgctcgac actgtttgaa gnatttaaca gtaagntaca gaagaagtac 60
cttcgagctg agacctgcag gtgtataaat atctaaaata catattgaat aggcctgac 120
atctgaatct ccttcagacc caggaaggat ggctatgact tggattgtct tctctctttg 180
gcccttgact gtgttcattg ggcataatag tgggcacagt ttgttttctt gtgaacctat 240
taccttgagg atgtgccaaag atttgccctta taatactacc ttcatgccta atcttctgaa 300
tcattatgac caacagacag cagctttggc aatggagcca ttccacccta tggatgaatct 360
ggattgttct cgggatttcc ggccttttct ttgtgcactc tacgctccta tttgtatgga 420
atatggacgt gtcacacttc cctgtcgtag gctgtgtcag cgggcttaca gtgagtgttc 480
gaagctcatg gagatgtttg gtgttccttg gcctgaagat atggaatgca gtaggttccc 540
agattgtgat gagccatatc ctcgacttgt ggatctgaat ttagctggag aaccaactga 600
aggagcctat ctcgag 616

```

<210> 1981

<211> 240

<212> DNA

<213> Homo sapiens

<400> 1981

```

gaattcgcgg cgcgctcgac aaagaattca aatatgcacc tggctccctt cactatatttg 60
ccctatcctt tgtgtctcatt cttactgaaa tctgtcttgt cagctcagga atgggattcc 120
cccaggaagg aaagcacttt tctgttcttg gaagcccaga ctgttcactt tggggcaggg 180
acgaacatgt gcctcgtgaa tttgcttgaa aacagtcacc atcttctacc ccctctcgag 240

```

<210> 1982

<211> 130

<212> DNA

<213> Homo sapiens

<400> 1982

```

gaattcgcgg cgcgctcgac gttacaaaat gaagactgga atatgttttc ctttttcttt 60
ttttttcttg ttttttttga gatggagttt tgctctgtca cctagggttg catggcgggc 120
tgatctcgag 130

```

<210> 1983
<211> 145
<212> DNA
<213> Homo sapiens

<400> 1983
gaattcgcgg ccgcgtcgac agaaaacact ccataattgc tttccttgat tttgctgagg 60
at ttgggtatg at ttttagtaa gcaaactgtt ttttggtttt tccttaaatgt ttttaatttt 120
ttttcctctt gcaacaactc tcgag 145

<210> 1984
<211> 211
<212> DNA
<213> Homo sapiens

<400> 1984
gataattttt ggccctctttt ttccctcag agaaaataca aatctttcaa aatatattta 60
acttttctct at tttcttcc ctatttaact tttctctatt tctaataatca ccactccaat 120
gaaatgtttt attatcttcc atttaagatc tctcattctg attgatcttt cacctgcctt 180
tggcctttca atacgaccca ccacactcga g 211

<210> 1985
<211> 220
<212> DNA
<213> Homo sapiens

<400> 1985
gaattcgcgg ccgcgtcgac tgagccttag catgggaata acaatgatgt gtatggcacc 60
taataacttat ggaagtaacc ctatttccgt gtatatcggg tacacaattt gggggtcagt 120
aatgtttatt atttcaggat ccttgtcaat tgcagcagga attagaacta caaaaggcct 180
ggcccgagggt agtctaggaa tgaatatcac cagactcgag 220

<210> 1986
<211> 208
<212> DNA
<213> Homo sapiens

<400> 1986
gaattcgcgg ccgcgtcgac ctcatcacag caatagtgtgt ctaataagtg ggaacaatc 60
taattgttca gcattagagg agagtgaagt agttcagatt cattcatata attcagttgg 120
tcatttatta ggggtattgt ttttaacaat tcaagaaaac atgtataata acagaagctg 180
gtttgggtttt ttaatacgaa cactcgag 208

<210> 1987
<211> 199
<212> DNA
<213> Homo sapiens

<400> 1987
gaattcgcgg ccgcgtcgac tgagagtgat gatttcttta aaaaaaatca gttttttct 60
ctcaaataat gttctttatt tcacgaaaac atcaatctta agcatgagca gggataaaca 120
actcctagaa ggaactcaat tcattcttcc tggactttct ctgttgtaa atcacaaaaa 180
tgatagtccc cctctcgag 199

<210> 1988
<211> 216
<212> DNA
<213> Homo sapiens

<400> 1988

```

gaattcgcg cgcgctcgac ggaagtacat tccagtcctt aattcctcca gtgtggttga 60
tagctctgtc agaataactg cagtctaatt tttcccttca tttttaaagt gatttttttc 120
tactaaatga tttcttttat ctattttctt tttcttgagc ctgatttatt ccctagtattg 180
ggcctttatg taacttttagc tccagcaciaa ctcgag 216

```

<210> 1989

<211> 250

<212> DNA

<213> Homo sapiens

<400> 1989

```

gaattcgcg cgcgctcgac actccatgtt tgcagctaaa cttctgactc acatgatggc 60
agccagctta ggtacacaga ttctgtttct ggcgtctgca tacgcaagtc cccaactcgc 120
tgaggagagc tgttcagcta tggctgctgt cacacattac ctgtatcttt gccagtttag 180
ctggatgctc attcagtcgt tgaatttctg gtacgtgctg gtgatgaatg atgagcacac 240
aaatctcgag 250

```

<210> 1990

<211> 265

<212> DNA

<213> Homo sapiens

<400> 1990

```

gaattcgcg cgcgctcgac aaatatttca taattaatgt agaatgtttc taaaatgtaa 60
tactaaatgt atgaacaatc tatgtttatt tcttttgaaa agaaattgtt tgaatcacat 120
tgctgcttta tgttaccttt ttcatacttt tagctacttc atgtacacga gatcttcctt 180
gattgtcact acaattggga attggttaac tgggtgcatc cggttaacact ttttctccta 240
agatttggtt cccttgaatc tcgag 265

```

<210> 1991

<211> 162

<212> DNA

<213> Homo sapiens

<400> 1991

```

gaattcgcg cgcgctcgac agttaattaa catacccac accttacgta cttacctatg 60
atgagaacat ttaaaatcta ccctgttagc agttttcaag tgtactatgc attattgtta 120
attatactca caatgctgta caatagaact ccagaactcg ag 162

```

<210> 1992

<211> 171

<212> DNA

<213> Homo sapiens

<400> 1992

```

ggtgtttctc tgtggcctca ccaggtctt gtgtattatt tggtaattaa tttatggatc 60
ttaaaaactg cagtattccc ccattttgtg atgagagtgt ggggctggca ggggttgggt 120
ggagggagga gagaagacag aggagcactt aagggtgcaa gcaggctcga g 171

```

<210> 1993

<211> 245

<212> DNA

<213> Homo sapiens

<400> 1993

```

gaattcgcg cgcgctcgac tgagctcttt cctgcctctg agccttggca cacactgttc 60
cctctgcctg gaataacctc tccccctagc tttctcggtt gtctcttctt gtctcagctc 120
aaatgtctct tgtagagatg gccctccctga tcatgtcccc taacatagca cccccctca 180
ccctatcata taactcatgt tgtttggttc cattttggct ttgtctttat agcactaaac 240
tcgag 245

```

<210> 1994

<211> 190

<212> DNA

<213> Homo sapiens

<400> 1994

```

gaattcgcg cgcgctcgac aataaaagaa agcctataag aatacctata agggtaggca 60
catcaccact gagagaaaaa aaaaaatcaa gggagtttat gttaaagtga gccctattta 120
agagatagca gaagaattaa gattgagact taaaaacaaa ataattgtta tgaaaatccc 180
tttccctcgag                                     190

```

<210> 1995

<211> 190

<212> DNA

<213> Homo sapiens

<400> 1995

```

gaattcgcg cgcgctcgac gaaatatact ctaatacggg aaatcttaga tattattatc 60
ttccatctat tatttacaat ttttacaatt taccatctct ctcatatcat gagattctaa 120
gttttagacc atgttaaatgt ttcttttttg ctgggtcgtg ttttcaagat ttggcaaacc 180
aaatctcgag                                     190

```

<210> 1996

<211> 124

<212> DNA

<213> Homo sapiens

<400> 1996

```

gaattcgcg cgcgctcgac ctgcctcgta aaagtttttt catctccatt agtttgtaac 60
tttctgttaa taacttgact ttgggatggg ccatttccag gtgctgtttc accagttact 120
cgag                                             124

```

<210> 1997

<211> 178

<212> DNA

<213> Homo sapiens

<400> 1997

```

gaattcgcg cgcgctcgac gagatcctgg attgagaatc tgtgttttag attctttatt 60
ttagtgatt tttctctaaa gcatttttta gttttatttt ctcttacaaa cttattttta 120
ttttttcttg aagctctgta tttctctcct catgaagatt tttgctgcat tactcgag 178

```

<210> 1998

<211> 247

<212> DNA

<213> Homo sapiens

<400> 1998

```

gaattcgcg cgcgctcgac ctgtgcttac ctttggtatg ggctcattat atatgtttgt 60
tcagaccatc ctttcttacc aaatgcagcc caaaatccat ggcaaacaaag tcttctggat 120
cagactgttg ttggttatct ggtgtggagt aagtgcactt agcatgctga cttgctcatc 180
agttttgcac agtggcaatt ttgggactga tttagaacag aaactccatt ggaaccggg 240
actcgag                                         247

```

<210> 1999

<211> 228

<212> DNA

<213> Homo sapiens

<400> 1999

gaattcgcg cgcgctcgac attgaattta gacctgcctc gagaacacac acaggcccca 60
 caccctcctt cctggctcca ctcacccaag atattgcaac ctctcaata caccttgatg 120
 actatctcag cctccacatc cttgcattgc tatttatgct gcctgggtgca cctcatgctg 180
 cctcacccca tcatctgect ctttctact cttactccag atctcgag 228

<210> 2000

<211> 289

<212> DNA

<213> Homo sapiens

<400> 2000

gaattcgcg cgcgctcgac ggggtgggca ataggtcagt gaattccagg tagtaggcca 60
 catccataat tgcggcatgc tccttagtaa gcagagtggg aaatgggtac aaatagaaca 120
 cagaacagaa agaatcctaa ccaagagggt gaaggaaata agccaactaa taataatggt 180
 tctttcttgg tattgggggt tattattaat attatgcttc tttgtaatat tcagtattgt 240
 caagacagtc tcaagaactg aaggaaattc agatgaaata caactcgag 289

<210> 2001

<211> 191

<212> DNA

<213> Homo sapiens

<400> 2001

gaattcgcg cgcgctcgac tagacctgcc tctaaattgt ccaccatcaa cgaacccct 60
 ccaaggtttg ctggaaacac tgtagcctg taagtagcag atactccctc ctctgtttgg 120
 tccagtaacc tgtaatgtca ctattctttt tacttcttgt tgcgctccc ctctcaccc 180
 aagctctcga g 191

<210> 2002

<211> 136

<212> DNA

<213> Homo sapiens

<400> 2002

gaattcgcg cgcgctcgac gaaagaaagt tctaattgtca ttttcaagat cttcaggaaa 60
 acgaactaat tttagttcaa ttgctgtgtt ggtgttacat ttgtactctg ccagtttctt 120
 ctccactgcc ctcgag 136

<210> 2003

<211> 179

<212> DNA

<213> Homo sapiens

<400> 2003

gaattcgcg cgcgctcgac atgagatttg aggtcaagga aatattttta ttatttttta 60
 cgatgagaga aattgtagta cacatgtata tttatgggaa tgactcagta gaaagaccaa 120
 aaatttcata tgtgagagaa ggaccaattg atgaagcgat gttcttgctg gtgctcgag 179

<210> 2004

<211> 188

<212> DNA

<213> Homo sapiens

<400> 2004

gaattcgcg cgcgctcgac ctagaagcaa gctgagtttc tatttcacac atacagtatt 60
 ctgctgcttc ataatatatg cacatatatc ttcattttt tttgccaaac ctttatttct 120
 tcagtcaact attatctaata gactttgaac accaacgtag tgaaatgatt ttaaagggaa 180
 ctctcgag 188

<210> 2005

<211> 224
 <212> DNA
 <213> Homo sapiens

<400> 2005
 gaattcgcgg ccgcgctcgac cacactcaca cccagaacat gtttctatta tctggactat 60
 tcaggaactt agtgggaattg agtgctctga ctatgcacac ttggaatggt cctgttgag 120
 acagggcagc gttgaagaag ggtttggccc gtgcagtggg gtgcccacct tcagggcaag 180
 cagctgactc cttctcttcc cccaggcatg ggagctccct cgag 224

<210> 2006
 <211> 199
 <212> DNA
 <213> Homo sapiens

<400> 2006
 gaattcgcgg ccgcgctcgac gtcacctttc tgaaatggga aaaattttac ataacgtatc 60
 atccccagta ggggttggag tgggtccctc aaatacactg ttatttttct tgtgttttg 120
 ttttgttttg agacggagtc tcgctctgac acccaggctg gaatgcagcg gcatgatctc 180
 ggctcaatgc aacctcgag 199

<210> 2007
 <211> 335
 <212> DNA
 <213> Homo sapiens

<400> 2007
 gaattcgcgg ccgcgctcgac cctaaaaact tagtagccgt tttttttttt aaatacacac 60
 atagtgaata atatttttat ttaaaaatta aaatgtttta ttttaagcaa ccaaaatttc 120
 tagtatatac actgcacaac ctcccaaatt tggatgtggc cactgtcatt tctgttcca 180
 cactgatttt tgcacagtac ttactttttt tcacagcaac cactaacagc caagcttctc 240
 aaagatgttg tggcattgaa aggaatgtag taaaacgac taatgttcaa acggaactac 300
 ttggacattt tcttccaaac ttagaaaacc tcgag 335

<210> 2008
 <211> 201
 <212> DNA
 <213> Homo sapiens

<400> 2008
 gaattcgcgg ccgcgctcgac ggcagtgcac agtgattgct aaagatacca tagtcttaaa 60
 gttaagtcag taaacacaag atagttaatc cagataaact ggaagctgta gagttaatac 120
 tcctttactg gtacagagca gtgtgtgtaa attgtagaaa atttagaat acataaaaag 180
 atgaaaactc tactactcga g 201

<210> 2009
 <211> 391
 <212> DNA
 <213> Homo sapiens

<400> 2009
 tgttttagatg tgtatgaaat acctgtatac gttagtgaat gctgtttact gtaacgggga 60
 aaaccagatt ctttgcattt gggccctcta ctgattgtta aaggagttcc tgtcacctgc 120
 tccccacc ccgcgatgcg tctgtccact tggctaactt ttaatatgtg tatttttaca 180
 ttatgtatat tcttaactgg actgtctcgt ttagactgta tacatcatat ctgacattat 240
 tgtaactacc gtgtgatcag taagattcct gtaagaaata ctgcttttta agaaaaaaa 300
 taacatgctg aggggtgacc tatatcccat gtgagtggc actttattta taggatcttt 360
 aaaacatttt taatgaacta agtcactcga g 391

<210> 2010

<211> 207
 <212> DNA
 <213> Homo sapiens

<400> 2010
 gaattcgcg cgcgctcgac cttttatggc agtcatatga accattatct tagcatggta 60
 aacctggggt ttgttcatat tttctccaga cagaaatgca aagatcaaac tgtgcaaata 120
 ttaaaaaaat gcacatgctg ttttattcaa atgcctcttt tgtacatgtt catgtttagt 180
 gttttctcag aatcagcacc cctcgag 207

<210> 2011
 <211> 191
 <212> DNA
 <213> Homo sapiens

<400> 2011
 ggaatcatct tcgggcttat tctgctagt tgttccatat ttctagattt catcttgaat 60
 tttgaaaact gatttaagaa tatatttagt attattatta gtaagggaa acgcaatcca 120
 gtttcaattt tattcagaag taggtcacct aattctagaa aatgggtatt agtctagtgt 180
 cgcttctcga g 191

<210> 2012
 <211> 205
 <212> DNA
 <213> Homo sapiens

<400> 2012
 gaattcgcg cgcgctcgac ccatgcccta tcagtgggaa taccctgatt tgctgagcat 60
 tttgccctct ctcttgggcc ttctctcctt tccccgcaac aacattagct acctgggtgct 120
 ctccatgac agcatgggac tcttttccat cgctccactc atttatggca gcattggagat 180
 gttccctgct gcacagcagc tcgag 205

<210> 2013
 <211> 170
 <212> DNA
 <213> Homo sapiens

<400> 2013
 gaattcgcg cgcgctcgac ctaaaactata tgctaatttt aggctatttt ttatttaata 60
 agtggataga accaaaccag ataactgact ctcttggaaga agaagtaagt ggtctcttaa 120
 taagcactgc ttggtctcag aaccttagta ctcccccaag ccaactcgag 170

<210> 2014
 <211> 291
 <212> DNA
 <213> Homo sapiens

<400> 2014
 gaattcgcg cgcgctcgac ctaaagggtct atcctcatat cccaacccc tccacccac 60
 ctccatccag aggaaaggaa caaaatttct gcaacaagat tctaagcctc tccagggtag 120
 gaaccagata ttattttact gttttttgct tttcaaacac caactcaaac cagatattgt 180
 ttctctttta tgtctatcac agtggtttta gtgagttttc tatttggtga aggtgtattt 240
 tgtgccaata acaagaatta ccgtgttaat tcttacaata caaccctcga g 291

<210> 2015
 <211> 281
 <212> DNA
 <213> Homo sapiens

<400> 2015

```

gaattcgcg cgcgctcgac ccaacccgac acatgctact gctgctgcta ctgctgccac 60
ccctgctctg tgggagagtg ggggctaagg aacagaagga ttacctgctg acaatgcaga 120
agtcctgagc ggtgcaggag ggcctgtgtg tctctgtgct ttgctccttc tctaccccc 180
aaaatggctg gactgcctcc gatccagttc atggctactg gttcaggggc aggggacccat 240
gtaagccgga acattccagt ggccacaaac aacaactcga g 281

```

<210> 2016

<211> 237

<212> DNA

<213> Homo sapiens

<400> 2016

```

gaattcgcg cgcgctcgac aatgctaatt ttagtattat ctgcttcaat tttgaagggt 60
aggatatata tagttatgtg tgtgtgtgtg tgtggggggg tagtgtttgt gtgtgtgtgt 120
gtgtatatat atttatatat tactagtcca ttgctgtctac aacaaactac cactatgtca 180
gggcataaaa caaatttatt acactcctgt atgtcagagt atgatgcgga tctcgag 237

```

<210> 2017

<211> 273

<212> DNA

<213> Homo sapiens

<400> 2017

```

gaattcgcg cgcgctcgac caccactgca acatatagac ctgagtgcta ttgtattttg 60
gcttggtgtg tatgtctctc attgtgtaaa attgctgttc ttttgacaat ttaagtgtatt 120
gttttgttta ctgtaagttt gaaaataaaa atgaagaaaa aaattccaat gactgtgtgt 180
tgggttgaga ctttatttac caagatgttt actcttcttc tccccttcca ttttgaggag 240
ctgtgtcact cctctctccc ccaagtgtc gag 273

```

<210> 2018

<211> 202

<212> DNA

<213> Homo sapiens

<400> 2018

```

gaattcgcg cgcgctcgac ctaaaaactc attttctact ctattaattt gctactttgt 60
gtcctcaata agggatattac aaatttaatt gattttgaac tcaatgattt tgaacttaat 120
gaaattgttt atttcagtaa cttcactttc ttttattttc ttcaccatta aacttgggtga 180
tatgaatccc aaacatctcg ag 202

```

<210> 2019

<211> 278

<212> DNA

<213> Homo sapiens

<400> 2019

```

gaattcgcg cgcgctcgac tacacaacaa caacaacaac aacaacagaa aaaaaaacta 60
gcaacaaggc tgcaatatct acaattggga taatgagtc tctgccctgg cttctgtctc 120
agcctccctt cccatctcta accatctgtt tgtctctcta tcttctgtc tttttctcag 180
catataaaca aacatgcaca ctaacaccca ggatggatat atctaagttt gctcatcaga 240
ccgaaagttt tccaatctcg catgtcccag aactcgag 278

```

<210> 2020

<211> 187

<212> DNA

<213> Homo sapiens

<400> 2020

```

gaattcgcg cgcgctcgac tgggttttga attatcatat agtaaaattg acttttgggt 60
tgggtgtagt ctgtgaattt aagtcagac tctgtgacc actagaacaa tcaagccgga 120

```

gaacagttct gtctttcccc aaaatttgct catgctgctc ctccctgctg caactccttg 180
gctcgag 187

<210> 2021
<211> 303
<212> DNA
<213> Homo sapiens

<400> 2021
gaattcgcgg cgcgctcgac aggagctggt actaaagtgc tgagggctgc agttaaaca 60
ttccaatttc tcccttcctt ccatctttct ttattgattg attctcaaga ttttgcacag 120
aaaactcttt gggggctaga acagcagtaa ttgcatcaca ctgttttcaa gacttcaagt 180
ttcaaaagca aatcattaaa aaaatacag ttcttgattt gagttagata cagggacaaa 240
aaagtagcac atacttgaag gttacgtggt ctacaaatgg tggcaatatt ttccctactc 300
gag 303

<210> 2022
<211> 238
<212> DNA
<213> Homo sapiens

<400> 2022
gaattcgcgg cgcgctcgac cattttgtca catagataat taaaagatgt gtattcatgg 60
atcaagactt aaaacattaa agatttttgc tgcttcatca gtgatattct caatgatact 120
ctacattatt ttactgtag ttgtagtgc agttgagaat gtgacaactt ctaatacagc 180
ttgtgtccag ctgccttcag ttttggaaat gcacaaacag tattaccac cactcgag 238

<210> 2023
<211> 200
<212> DNA
<213> Homo sapiens

<400> 2023
gaattcgcgg cgcgctcgac caaatatatt aaatttccca ctgctccaaa ttctttccaa 60
ctcttggtat catgagatta catttctacc aattttatgg gtataaaatg gcatctattt 120
ttattttatt ttattttatt ttattttatt ttattttatt atttattttg agacgtagtc 180
tcactctgtc gccactcgag 200

<210> 2024
<211> 266
<212> DNA
<213> Homo sapiens

<400> 2024
gaattcgcgg cgcgctcgac ataaataatt gcatattagg agaattggat tactgaggtt 60
tgtattgctt attgaatata ttttgtgtta ttttagaaga taataattag cagggtattt 120
aattttatag ttaattcagc tgaatcatta agaagctcgc ctttttgtat ttttttatcc 180
tgtaaacaga ctatctagaa aacatgcaaa ttttaactat taacataatc ataataaaga 240
tatcttattt attgccagca ctcgag 266

<210> 2025
<211> 462
<212> DNA
<213> Homo sapiens

<400> 2025
gaattcgcgg cgcgctcgac cgagtattta tgctttcttg gaataaatct tgagcaaaaa 60
gggcaagctg gtttttgact gcagagagaa ttagtggttc tgacagccaa gaagactaga 120
gctggatatg tcagatgagt ttcttagaat cattctctct cccttctgta ttgtgataga 180
ctatcactct catgaaggga aagactgttt ttgatgtcta aagtttaggc cagtgtctca 240

```

catatagaag ggctcaaatg ttcaatttaa taaataaggt ttttgtttag ttttttttcc 300
taattccgag aaaagacatt agactgatgg tttaaggaaat cgcaaagctc tctgaaatgt 360
agtaaggatc aacatcagtg tggagaacag tctggagggt catgactcga ggcagggtcta 420
gaattcaata ttgaattcta gacctgcctg agtgagctcg ag 462

```

```

<210> 2026
<211> 312
<212> DNA
<213> Homo sapiens

```

```

<400> 2026
gaattcgcgg ccgcgtcgac acgagctcgg atccgtgtgg agcacattat ccgggaagac 60
tacctcgtgg aggccatgga gatcctggag ctgtactgtg acctgctgct ggctcgggtt 120
ggccttatcc agtctatgaa ggaactagat tctgggtctgg ctgaatctgt gtctacattg 180
atctgggctg ctccctcgact ccagtcagaa gtggctgagt tgaataatagtg tgctgatcag 240
ctctgtgcca agtatagcaa ggaatatggc aagctatgta ggaccaacca gattggaact 300
gtagaactcg ag 312

```

```

<210> 2027
<211> 231
<212> DNA
<213> Homo sapiens

```

```

<400> 2027
gaattcgcgg ccgcgtcgac aatatttctt attattttat aatatctata ttactaaagt 60
gttttcattt catttccata ggtcataggt tttggatctg ttaaaattgc agcattcata 120
gctatggtag gaattctgtc tattgtggct cagggtgagta tcattttatc tataacttaa 180
aaatttaaaa aatattcctga taaccatagt ttcacaggaa cccatctcga g 231

```

```

<210> 2028
<211> 191
<212> DNA
<213> Homo sapiens

```

```

<400> 2028
gaattcgcgg ccgcgtcgac atgcagggtga ggatggagca acaggaacgc tcgttcattg 60
ctggtggcaa cgcaaaatgg cacagccact gtagaagagt ttggcagttt cttacaaaat 120
taaacatact cttatcatgc attctagcaa tcatgtcctt aggtatttat gcaaatgaat 180
tgtcactcga g 191

```

```

<210> 2029
<211> 669
<212> DNA
<213> Homo sapiens

```

```

<400> 2029
gaattcgcgg ccgcgtcgac gagaatgaat atgactcaag cccgggttct ggtggctgca 60
gtggtggggg ttggtggctgt cctgctctac gctccatcc acaagattga ggagggccat 120
ctggctgtgt actacagggg aggagcttta ctaactagcc ccagtggacc aggctatcat 180
atcatgttgc ctttcattac tacgttcaga tctgtgcaga caacactaca aactgatgaa 240
gttaaaaaatg tgccttgtgg aacaagtggg ggggtcatga tctatattga ccgaatagaa 300
gtggttaata tgttggctcc ttatgcagtg tttgatatcg tgaggaacta tactgcagat 360
tatgacaaga ccttaatctt caataaaatc caccatgagc tgaaccagtt ctgcagtgcc 420
cacacacttc aggaagttta cattgaattg tttgatcaaa tagatgaaaa cctgaagcaa 480
gctctgcaga aagacttaaa cctcatggcc ccagggtctca ctatacaggc tgtgcgtgtt 540
acaaaaccca aaatcccaga agccataaga agaaattttg agttaatgga ggctgagaag 600
acaaaactcc ttatagctgc acagaaacaa aaggttgtgg aaaaagaagc tgagacagag 660
agcctcgag 669

```

```

<210> 2030

```

<211> 238
 <212> DNA
 <213> Homo sapiens

<400> 2030
 gaattcgcg cgcgctcgac attgcacaat ctacgcaaac cactgaagtt tcatcattcg 60
 tttctactga cttccagata atcggagtcac accttctaac cttctagtct cacttcttcc 120
 aaataaact gtacagactg gggagaatta ttctaccac tccctcattt catgcttgtc 180
 tgccttctc tcgaaggctc gtatgatgaa aattgcaaaa acccagctaa tactcgag 238

<210> 2031
 <211> 151
 <212> DNA
 <213> Homo sapiens

<400> 2031
 gaattcgcg cgcgctcgac cttgaacact tattgcactt ttatttattg ttaactgtga 60
 aaagtacgtc ctttattggg ttccctttta tttcttgggt ttgttaagaa gaatgggttg 120
 tttttatagc aaaactgtta agctgctcga g 151

<210> 2032
 <211> 242
 <212> DNA
 <213> Homo sapiens

<400> 2032
 gaattcgcg cgcgctcgac atattctaata aagggatatg cctattccct gataagcaga 60
 tttattaaaa acttcaatct acctaacagg tcattttgat aaggctatat tattaacgtg 120
 caatattcat attcatgtct tttttctttt ttttttctt ttttctgaga ttgagttttg 180
 ctctgttgcc caggctggag tgcaatggca cgatctcgcc tccttgcaac ttccacctcg 240
 ag 242

<210> 2033
 <211> 240
 <212> DNA
 <213> Homo sapiens

<400> 2033
 gaattcgcg cgcgctcgac ctacacctgc cttgatacct gtgaaccatt ggaggacttg 60
 catctcttat tttggaagga atcatcccag actaaaaggc tcctaccact gatcctgaag 120
 aaaaaccctt tcctccttaa aaaagataag tgaaaaccta cataatcttt aacacctctc 180
 cttgccccct taatggaatc cttttactat ttcacatgt tattaagcag catactcgag 240

<210> 2034
 <211> 241
 <212> DNA
 <213> Homo sapiens

<400> 2034
 gggagttaag ggaatgaagt tcctgtgtga ggctttgagg aaaccactgt gcaacttgag 60
 atgtctgtgg ttgtggggat gttccatccc tccgttcagt tgtgaagacc tctgctctgc 120
 cctcagctgc aaccagagcc tcgtcactct ggacctgggt cagaatccct tggggctctag 180
 tggagtgaag atgctgtttg aaaccttgac atgttccagt ggcacccgcc aaacctcga 240
 g 241

<210> 2035
 <211> 138
 <212> DNA
 <213> Homo sapiens

```

<400> 2035
gaattcgcgg cgcgctcgac ctttgcattg aatctattta ctgggttaca ttctatgtgt 60
agtttgcttt cttcattttt ttttctttta aaatgctcat gtcttattcc aagcaccttc 120
ctccaaagcc ccttcgag                                     138

<210> 2036
<211> 206
<212> DNA
<213> Homo sapiens

<400> 2036
gaattcgcgg cgcgctcgac ctgaattagt aaatattagt tccttctcct tatagccata 60
tgagtttgag aaatttttgt tccgaactgt gtaaaccaga aaaagattag atgttaatac 120
ttggaagatt tttaaaatct ttttgttttg gtctgttttt gtttataaca gctgtaatga 180
gatataattc acataaccagt ctcgag                                     206

<210> 2037
<211> 150
<212> DNA
<213> Homo sapiens

<400> 2037
gaattcgcgg cgcgctcgac ctgcctcgag tgtgccgctt ggtcatatgc agagaattgt 60
taccaggggc cgaacatgaa catagtctcc ccagatctta ttttgttttt attgttatgc 120
tcccaggctt tagcaaagga aattctcgag                                     150

<210> 2038
<211> 197
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (146)

<400> 2038
gaattcgcgg cgcgctcgac attgattcta gacctgcctc gagtgggaat tcagagctta 60
acgtgtactg cttgtgtgtg tgcgtgagtg tgtgtgtgtg tatgagagag tgtgtgttcc 120
gcctcccacc ctctcccacc ctgctntggg tatttttgtt tttgtttagt tttagggtta 180
caacagagag actcgag                                     197

<210> 2039
<211> 224
<212> DNA
<213> Homo sapiens

<400> 2039
gaattcgcgg cgcgctcgac gcaatttagt gataaatgat tatacatttc aacttaacaa 60
cagataacaa aaattctcta gttatttatg gacttcgtca tctaaaaatt tggcttgctt 120
gtgtggactt cttatttaaa agtgacacag ctaatcgata tacaagcaca tcattaacaa 180
tgcagaccaa gccaacacaa tttttccatg agtcatcgct cgag                                     224

<210> 2040
<211> 294
<212> DNA
<213> Homo sapiens

<400> 2040
gaattcgcgg cgcgctcgac atctgttatg gcctttctca ttcttctttt ctctgtctca 60
ggttttctac tgctctctct ctacgtctcc cgatcccttt ggccaacaca atcacaggag 120

```

ggctttgaag taagatgcct gcatcccgga ggagcgcatt ttccagaggc tgggtgcaggg 180
 caggcaagaa cacacgggtgt cataggacag ccccgggcac ctccccaaag cggggtcagg 240
 agaaacgaaa gacggaggag aacttccagg tctatgagga cccacgact cgag 294

<210> 2041
 <211> 236
 <212> DNA
 <213> Homo sapiens

<400> 2041
 gaattcgcgg ccgcgtcgac cttataaaca aggagagttt ttgtgtgtgc gagatctcta 60
 agccagcgtg ggaggagcgt cctcaggata agttattata ttcatttcgt tggtttctct 120
 cctgcccaat tcttggcaca ggcattatgt ttgaagaaac caggataagg tacactgctt 180
 ttgtctgttt aattttttta gttgtttccc ttcactttca gtcttcaca ctcgag 236

<210> 2042
 <211> 192
 <212> DNA
 <213> Homo sapiens

<400> 2042
 gaattcgcgg ccgcgtcgac gattacaggc atgagccacc atgccagcc agttttcatc 60
 ttttttaaga ggaaaacaat aactaaattt tcttttacgt taaacattct tctatttctg 120
 ttatccattt gtaattcaaa aaatagtgtg tgtttgttc acgacagAAC atcagatacc 180
 aaaccctcag ag 192

<210> 2043
 <211> 207
 <212> DNA
 <213> Homo sapiens

<400> 2043
 gaattcgcgg ccgcgtcgac gattgtcttt tcaatttttg agagttttcc tgtggctaca 60
 aggcaagtaa cgggttgga aaagtctgac tgtaagcgtt ggacaccttc atagtgtagt 120
 gttttagtga ctttttttat acggttcttg taaattagat acgtgtagtgt gtgtttcaga 180
 atgtttgttt atgcactagt tctcgag 207

<210> 2044
 <211> 105
 <212> DNA
 <213> Homo sapiens

<400> 2044
 gaattcgcgg ccgcgtcgac ctgtactgct agtaagtgc tgataacatt ataaactagt 60
 tatatttttc ttatgcgtca tcagctgctg gtggtgactc tcgag 105

<210> 2045
 <211> 259
 <212> DNA
 <213> Homo sapiens

<400> 2045
 gaattcgcgg ccgcgtcgac cccatagggg atccgtttta ctactttatc ctttcagtct 60
 ttctttttcc cctaaataag caaaaacgtg tcttcatttt tccctttcct gttttattta 120
 cacagaaggc atcttagtca gttgtctgac categtcct ctagtgggct gcgtggttct 180
 ctgttggaca gatgtaggga gcttatccaa ccagtaccct ctggataggc aggcgcata 240
 ttacagggcc gttctcgag 259

<210> 2046
 <211> 250

<212> DNA
<213> Homo sapiens

<400> 2046
gaattcgcgg ccgcgtcgac ggagcaggcc aacgatgacg cgcgcacctt ctacatcate 60
gagcgcgagc cgctcatcaa cacctacatc tccgtgccca aggagaacag cacgctcaac 120
tgcgccagct tcacggcggg catcgtggag gcggtgctca cacacagcgg ctccctgcc 180
aaggtcacgg cgcactggca caagggcacc acgctcatga tcaagttcga ggaggcagtc 240
atcgctcgag 250

<210> 2047
<211> 152
<212> DNA
<213> Homo sapiens

<400> 2047
gaattcgcgg ccgcgtcgac atgccccacc tgcctccag cctcacccta actccccctc 60
ccttcacact ttcctgttcc ctgaagatgc cactgctggc tgtatcattg tacatgctgt 120
tcttcttacc tggaataccc ttctccctcg ag 152

<210> 2048
<211> 255
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (108)

<400> 2048
gaattcgcgg ccgcgtcgac caaaaaattg ttcttcttg gagtgtcttg gctattctta 60
gccaaactgtt cctccatatt acttctagaa ttagaccaac aatttatnaa tcaaacaac 120
ccaagagcat tgaaattttg attggatttg tattgaattt atagattaat ctggtaaacc 180
atgtcatctt tacaatgttg tcttccaata catgaatatg gtacagctct tcatttactt 240
aggcctttac tcgag 255

<210> 2049
<211> 121
<212> DNA
<213> Homo sapiens

<400> 2049
gaattcgcgg ccgcgtcgac cgattgaatt ctagatctgc ctccagggat aaaccccatc 60
tttcaagctt gcttcttctg tgatgctttc tgctgctttc ttgcttttgt ttcagctcga 120
g 121

<210> 2050
<211> 258
<212> DNA
<213> Homo sapiens

<400> 2050
gaattcgcgg ccgcgtcgac gaaagggaag aattgtttta gaaagacaat atttaaaaca 60
ccgcactgcc aatatattga tcctttatag ttatttccta aaatgctgtt ttcgaaacat 120
tcctttttca ccctgttgtg tggcttagac ccattctcga atctgttaat tggaaagagg 180
ctacagacac cagcagtgtg cgttctgcag gtacacgctg ccaaagtaat tcctgctcat 240
ccatgccctt gtctcgag 258

<210> 2051
<211> 171

<212> DNA

<213> Homo sapiens

<400> 2051

```
gaattcgcgg ccgcgtcgac tgaagataaa ataaggttac tttcaatggt tagcagagtc 60
gtattcagaa tgaggggaact attaccatta ctagcaatga gccattcttc cctgagcccc 120
agacatgaac tgcaggaagg gaggggagcc ttgagtcgtg tggagctcga g 171
```

<210> 2052

<211> 130

<212> DNA

<213> Homo sapiens

<400> 2052

```
gaattcgcgg ccgcgtcgac gggggaggta tagacaagca aggatactta attaattaat 60
atattaacga agtatagaaa agcaagtata cttaatatat taagaaatga tggctaacat 120
ggcgctcgag 130
```

<210> 2053

<211> 292

<212> DNA

<213> Homo sapiens

<400> 2053

```
gaattcgcgg ccgcgtcgac tgcctgagga tatgggggtg ggggtagggg gtgtggagag 60
aagggttatg ctttctggag gagggtggag aaaagggaat gattagggaa aagggaacaaa 120
agtaaaatat caagaagcat ctttacaaaag cagttctata gctaattcct tttaaagggg 180
aaaggaaaagg taaccaaagc aggaaaacgt ttatctctgt gtcttaaaaa aaaattgtct 240
accatacata tatccaaaaa tgtgggaaaa atacttattc cagggtgctcg ag 292
```

<210> 2054

<211> 249

<212> DNA

<213> Homo sapiens

<400> 2054

```
gaattcgcgg ccgcgtcgac caacaagttt agatattaat agccactcaa agccttcagc 60
ccatataaca tgaagtgaca actgagctct gcacataatg ctcaagctct ataataacca 120
acactctcag cacaagggtg gacaagaaaa gaaaaatctc ctgctggcca ggaagaccac 180
aaggaggctt tctgacttgg cctgtgcttt tgatttttaa aacatttttt aaaagaggcc 240
ccactcgag 249
```

<210> 2055

<211> 227

<212> DNA

<213> Homo sapiens

<400> 2055

```
gaattcgcgg ccgcgtcgac gccaatacco cttctgtgaa tacaggttat ttcaagcttt 60
cgtcagtggc aaccactctt aggcagcagc aactgggttt ggaaatttcc ctgatgtcag 120
taccacctgg atgtggacct ttgctacctg tattaatacc agtggcctca ttttgctgta 180
tcattacaat ttggcttctt atattaatgt ttgaaaagga tctcgag 227
```

<210> 2056

<211> 639

<212> DNA

<213> Homo sapiens

<400> 2056

```
gaattcgcgg ccgcgtcgac atgaatcttg gaaacatgtc tgtgaaggaa ggcagccaca 60
```

```

gaagacacat attgtatgat tctgtttacg tgaaatgtct agaataggca aatccataga 120
gacaaaaaatt agaattagtg gattactgat tgcctagggc tagaggagtt gggagaataa 180
agaagggaagg aatactaact cactggaatt tctttttgag gttataaaaa tattttcaaa 240
ttggatgggtg gtaatgggta atttccacca ttataatact aaaaccattg agttatacac 300
tttaaatgag caaatgtgat ggtgtgtgaa ttatagggta ataaagctgc ttaagtacat 360
atatatgtat agcaataatc atttattgga tttcagttca acagacactc ctatgagaag 420
ccctttgaga tacgccagac aagagagatg agggctctgcc cttgaaatct gaaaactgat 480
agatcagaaa tctggtagac agtaggtgat tataatgaga tgttctgtaa ctgagatgga 540
gaaaaagatg gtgtacaaat gcaaaggaga gaggtgggct agcgctggct gggactggga 600
ggcagcagga agaaggtggt atctgtgccg gccctcgag 639

```

<210> 2057

<211> 206

<212> DNA

<213> Homo sapiens

<400> 2057

```

gaattcgcgg ccgcgtcgac agacagaagt gtagtatgct gtatgaatat tttatattaa 60
aatatgaagg tttagagaca ggccattggc tactgactgt atttcccttg ctgagtacat 120
ttttgttttc cttttaccat tttatcttgc tttggaggac cttaaatgct actgaaactt 180
acctgagaac cacaggacat ctcgag 206

```

<210> 2058

<211> 387

<212> DNA

<213> Homo sapiens

<400> 2058

```

gaattcgcgg ccgcgtcgac atttgaagca ctctaaagct ccaaaagact ttagacctag 60
ttcatcttca gattatttcc atcttaacgt ttccacctct ttggcccaa aatgggcacc 120
ttttgttgcc atttaggaaa gggagaagtt tgggggtttt tgggttggtt tttgtttttt 180
ttgagacagg gtctcactat gtcaccagg ccaggctgga gtacagtggg ccattatggc 240
tcaactgcagc ctcaaactcc tgaactcaag cgatcctccc acctcagcct cccaggtagc 300
cgggactaca ggctcgtgcc accaggtatg gctagtgtga tttttgtag agacgaaatc 360
ccactctgtg caccggctgg tctcgag 387

```

<210> 2059

<211> 253

<212> DNA

<213> Homo sapiens

<400> 2059

```

gaattcgcgg ccgcgtcgac gttacatgta aatagcagaa taagccatgt tatttcacta 60
ttccatcctt ttgcactctt cctctctata tattatatac gtatatgtat gtgtgtatgt 120
acatacacac acacatatat ttttctccca tgagatgtcc atctcttctt tctctgcaag 180
gctattacct actcctcaaa cctcagaaaa gaagctcaag ggacatctcc cttgggacca 240
tcctcaactc gag 253

```

<210> 2060

<211> 200

<212> DNA

<213> Homo sapiens

<400> 2060

```

gaattcgcgg ccgcgtcgac cttgtcttca ggcaggcatt tctgggatct aaactagaaa 60
tccttgaaaa caaatagtac cagccacttt gaggaatgtg cattcactat agtgggttat 120
tatgggggtct ctgcctctg gctgtgttat gcggagccca ggagtggagg agagccgtgg 180
aaatagatag ggttctcgag 200

```

<210> 2061

<211> 427

<212> DNA

<213> Homo sapiens

<400> 2061

```
gaattcggcc aaagaggcct acaggtgttt tcatttgggtg atcagggctg aacagagaga 60
tctcaccatg gactttgggc tgacctggct ttttcttgtg gctattttta aaggtgtcca 120
gtgtgcggtg cagctcttgg agtctggggg aggcttggta cagcctgggg gatccctgac 180
actctcttgt gaaggctcag gcttcaactt cagcgataaa gccatgagtt gggtcggca 240
ggctccagga aaggggctgc agtgggtctc cactattagt cccagtgggtg agaccacaaa 300
ctacacggag tccgtgaagg gccgcttcac catctccaga gactcgtcca ataacaccgt 360
ctatttacia atgaagagcc tgagagtcga ggacacggcc ctatattact gttcgaagga 420
tctcgag 427
```

<210> 2062

<211> 156

<212> DNA

<213> Homo sapiens

<400> 2062

```
gaattcggcc aaagaggcct aattctagca acgttgattt accttacatt cctgctgaaa 60
actcaccaac tcgccagcaa ttccattcca agccagtaga ttctgacagc gatgatgatc 120
ccttgagggc attcatggct gaagtggagt ctcgag 156
```

<210> 2063

<211> 110

<212> DNA

<213> Homo sapiens

<400> 2063

```
gaattcgcgg ccgcgtcgac gaagaagtta ttctgattca catttaagga ttgacattac 60
ttcaagcaaa attgggaaag aatatgaaac aaaagatatg tggcctcgag 110
```

<210> 2064

<211> 416

<212> DNA

<213> Homo sapiens

<400> 2064

```
gccctgggat tttcaggtgt tttcatttgg tgatcaggac tgaacagaga gaactcacca 60
tggagtttgg gctgagctgg ctttttcttg tggctatttt aaaagggtgc cagtgtgaag 120
ttcagctgtt ggagctctgg ggaggtcttg tacagcctgg agggctccctg agactctcct 180
gtgcagcctc tggattcagt tttagcagct atgtcatgag ttgggtccgc caggctccag 240
ggaaggggct ggagtgggtc tcagctatta gtggtagtgg tgggtggcaca tactacgcag 300
actccctgaa gggccgggtc accatctcca gagacaattc caagaacacc ctgcacctgc 360
aatggacag cctgagagcc gaggacacgg ccgtttatta ctgttgcgaa ctcgag 416
```

<210> 2065

<211> 516

<212> DNA

<213> Homo sapiens

<400> 2065

```
gaattcggcc aaagaggcct agcttgggct gatggagagg gcctacaggg ccaggccttg 60
aaggggaggg aaattgttag ctacacgacc aagagacaga agagaggaag gagtttgtac 120
ccacaactca gctttatttt atgtaagctc tttctgcaaa gggaaagtag ctctttgtac 180
caaagcaagg gcctctgaat gagagctggg agaggccaga atgggcctgt aagaggttga 240
tgtgtatgag acctgaagcc ctatgccttt gggaaaggaga ggaaggacta atatttgtgt 300
ggtacaaaag atgtgcctgg catacccat atcttttaca aagacataaa tgtcttctga 360
ataaaagtat gatgatgatg atcatgggtga tgaagatgag ggtgatgatg ttgatgatga 420
```

tgatggtgat ggtgatgatg gtagtatgat aatgctgatg gtggtgatgg tgataggagg 480
 gtgatggtga tgatgatggt gataagatcg ctcgag 516

<210> 2066
 <211> 472
 <212> DNA
 <213> Homo sapiens

<400> 2066
 gaattcgcg cgcgctcgac cgcggccgcg tcgactatct atctcttggg tgtttattgt 60
 gaggttactc agacttaggc atagaatttg cattgttgct aaagataatt aatgctttac 120
 catcctgtta tttttgtgtt tacagctaga tttgtaataa tttctttaat gtcttaaaca 180
 agcttgaaca aatccttaga taggaaaagt attcactttt tccaaaggaa atattaacat 240
 gctaattact gatataattac ccgtagggtt tcttaatatc tcaaagttaa actgtgaata 300
 attttttctc caaaggataa atctaccaag aaactctgat atatgcaaat acttatgcat 360
 attaaacttt ctgatatgac atctagagct tttgtgtaca tttctacaa atagaaacac 420
 tcagaagacc tttggttgtt aaaagatgca tcctggccag gcaataactcg ag 472

<210> 2067
 <211> 254
 <212> DNA
 <213> Homo sapiens

<400> 2067
 gaattcgcg cgcgctcgac cgtcgattga attctagacc tgcactctaa atgaaatact 60
 cttttttctc ttcagcattg acttggtgct cttcagcatt gataatggct gtatcagcat 120
 ctggtgcatc ttcagctcct ttagcttcat ttgttaaata cgttccttta tgccttgcca 180
 gatatcgacc aagcagaaag atagaacaca gcgtgacaaa tacaactaca gccactattc 240
 ctccaaacct cgag 254

<210> 2068
 <211> 169
 <212> DNA
 <213> Homo sapiens

<400> 2068
 gaattcgcg cgcgctcgac aaaaaagcat aatgaaaaag aaagctgggt acaaagctaa 60
 ctccaaacac aaagacaaaag aacagacagt agtagatgtc actgagcagt taggcgattg 120
 caaattagat agtcaggaga aagatgctac atgtgaactt ccgctcgag 169

<210> 2069
 <211> 242
 <212> DNA
 <213> Homo sapiens

<400> 2069
 gaattcgcg cgcgctcgac agttcagtgg ccatagatat tttactcagt gtcactgtag 60
 cactgtttc ttttaattctg ctctccacc gtgagttgtt ctgactgcac ctccactctg 120
 ggaaacaaag gcttagctgt acattcatgg ctcagagcat caaaacctgt gttttcatta 180
 ttgcgggcag cttctgttgt ttcaacatgc caagggttaa catcctttcc aaaatcctcg 240
 ag 242

<210> 2070
 <211> 386
 <212> DNA
 <213> Homo sapiens

<400> 2070
 gaattcggcc aaagaggcct actcgacttt ctctgcacag cagggtccagc atcctttgaa 60
 acatgagttc ttaccagcag aagcagacct ttacccacc acctcagctt caacagcagc 120

```

agggtgaaaca acccagccag cctccacctc aggaaatatt tgttcccaca accaaggagc 180
catgccactc aaaggttcca caacctggaa acacaaagat tccagagcca ggctgtacca 240
agggtccctga gccaggctgt accaaggctc ctgagccagg ttgtaccaag gtccctgagc 300
caggatgtac caaggctcct gagccaggtt gtaccaaggt ccctgagcca ggctacacca 360
agggtccctga gccaggcagc atcgag                                     386

```

<210> 2071
 <211> 144
 <212> DNA
 <213> Homo sapiens

<220>
 <221> unsure
 <222> (55)

<220>
 <221> unsure
 <222> (63)

```

<400> 2071
gaattcggcc aaagaggcct agagagtggg ggataaccaa ttgtcaaac ataanttttc 60
ccnatattga aataatagtg ccattatata ctaaaatctc atatgcaaag aaatctattt 120
caaaaattct ggggactcct cgag                                     144

```

<210> 2072
 <211> 624
 <212> DNA
 <213> Homo sapiens

```

<400> 2072
gaattcggcc aaagaggcct aagcgtaggc aacaaagcaa gactccgtct caaaaaataa 60
ataaataaat aaataaaaaa aataacaata atgaagaaaa caatccgggtg attattgtca 120
gcaataaaaat ttcttcaatc aaccatgctt tagtcctggc agttctctat cagttagttt 180
caatcaaaaaa gtttgtttat aatttttttt ttttttaaatt ttgaaaattt ggaaacaaca 240
tcataaatga tgggttagttt tctgcagctc cctatttttg cagatagtct gttgttactc 300
ataattaatt tgaactaaaa agtagtggtg tacgatataca tgggctgtga atgtgtttgt 360
gacttgatct gagaaccac acaccactta ggatgcttct gtaggaaaat tagagtatgg 420
aactcacttg cccacgcttt cctgtctca gtccatgttg gtaggctgca aagtctgggg 480
ctagaaggac actgaacaag acttcagcag tacatgttag tcttcagag ggaaggaata 540
taatagttag gagaataatt cctttcctct gtgacttttag gcaaattctt ggctatgctg 600
ttattttattt gggccaccct cgag                                     624

```

<210> 2073
 <211> 260
 <212> DNA
 <213> Homo sapiens

```

<400> 2073
gaattcgcgg ccgcgtcgac gtttgatcga agtctcattt ttgactagaa acagtaaaga 60
gcagctttat taagatcaat ggaatgggtc tgaatgcctg tttctacaga aggattaaat 120
taaaattttt tctttttttt ctttttttga gacagtcttg ctctatcacc caggctggag 180
tgcaagtggca cgatctcggc ttactgcaat ctccacctcc cgagttcaag caattctcct 240
gcctcaacca tccactcgag                                     260

```

<210> 2074
 <211> 142
 <212> DNA
 <213> Homo sapiens

<400> 2074

gaattcgcgg ccgcgctcgac ctgaaaatag aatgagcttg gttaagcacc tctcctttgc 60
 ccttcaccct gactcctgtc actgtctcca tccccaaata aagctgaaat atttttttaa 120
 gttagctgcc gagaccctcg ag 142

<210> 2075
 <211> 159
 <212> DNA
 <213> Homo sapiens

<400> 2075
 gaattcggcc ttcattggcct agtattatct actcattgga ctattaggaa caccaagttt 60
 ataatacatt gtctaacacg ctgtatgtat cacttaataa gtgttttctt cctcttcccc 120
 atccagagca ctttctaccc tcttccccca cacctcgag 159

<210> 2076
 <211> 360
 <212> DNA
 <213> Homo sapiens

<400> 2076
 gaattcggcc aaagaggcct agttgggagg agagtaaata ccctgattcc tgctcatagg 60
 aagctggacc aacccaaagg gcctgatatc ccatgaagcc catttttctt tggttagacct 120
 gtcagaatta cagcaggcct tgggtgcatac actaagacaa gggtagaacc agatactgga 180
 agctgagggg aggccctaag aaatagaagg gcagaattgg aagagatggg aacccaccca 240
 tctctgagca taagcccat ctagtcattg tctttggcca ttttaagtct gttagcttct 300
 tttaaagggt agtgagtata gggtcgacgc aggtctagaa ttcaatcggg tctccctata 360

<210> 2077
 <211> 286
 <212> DNA
 <213> Homo sapiens

<400> 2077
 gaattcggcc ttcattggtat ttttagtaga gatgggggtt caccatgttg gccagcctag 60
 tctcgaactc ctgtcctcaa gcgatgcacc tgccctcgcc tccccaaactg ctgggattac 120
 aggcgtgagc cactgctctc ggcctgtgcy ttttttcttt gcgggaatgc tctcacttg 180
 ttgcatttct tgcygtgttt tgcattccga gccctttgcc gcttgcagca tccaattatc 240
 tcctccagtc agcagccact tgccttccag tgtttctgga gtcgag 286

<210> 2078
 <211> 326
 <212> DNA
 <213> Homo sapiens

<400> 2078
 gaattcggcc ttcattggtat aatgctggct aataggtact taagttcatt atgctttgta 60
 ttctctactt ttgtatatgt ttgaaggctt ttacaataaa agttttttaa agtaaatgca 120
 gatgctcaca cacacataaa attcaaacta aagttacaaa gaaaaaatta aaaccacacg 180
 taatactacc agactgaatt ctctttcac agtatttcca gcaaatctgg aatcagaaga 240
 gttgtattca aattctggtt ttgtcaataa tgagctctgt gaacttgtac ataacttctc 300
 tggattgatt ctagacctgc ctcgag 326

<210> 2079
 <211> 285
 <212> DNA
 <213> Homo sapiens

<400> 2079
 gaattcggcc ttcattggtat aaaaaaata aaaaacatat atatatatag ataggtatat 60
 agatatatct atagatatat atgagtgtta tataaatata tctatagcta tgtatatgag 120

```

tgattttttt taaagttgca gcaccatttg ttgaaaacct atcctttctc cactgaattg 180
cctttgcacc ttattgaaaa ttagccatac atgtgtgtct cattctggat tctattctgt 240
ttcattgac tgtttgtcta ctctgatgcc cataccacac tcgag 285

```

```

<210> 2080
<211> 292
<212> DNA
<213> Homo sapiens

```

```

<400> 2080
gaattcggcc ttcattggatt taatattact tacagttttg atatgtgtcc aaataactgc 60
tcaggccgag gagagtgtaa gatcagtaat agcagcgata ctgttgaatg tgaatgttct 120
gaaaactgga aaggtgaagc atgtgacatt cctcactgta cagacaactg tgggttttcct 180
catcgaggca tctgcaattc aagtgtatgc agaggatgct cctgtcttct agactggcag 240
ggtcctggat gtccagttcc tgtaccagct aaccagtcac tttggactcg ag 292

```

```

<210> 2081
<211> 574
<212> DNA
<213> Homo sapiens

```

```

<400> 2081
gaattcggcc aaagaggcct acatggccga agcaagtagc gccaatctag gcagcggctg 60
tgaggaaaaa aggcattgagg ggtcgtcttc ggaatctgtg ccaccggca ctaccatttc 120
gaggggtgaag ctccctcgaca ccattggtgga cacttttctt cagaagctgg tcgccgccgg 180
cagctaccag agattcactg actgctataa gtgttcttac cagttgcagc ctgcgatgac 240
acagcaaatc tatgacaagt ttatagctca gttgcagaca tctatccggg aggaaatctc 300
tgacatcaaa gaggagggga acctagaagc tgtcttgaat gccttggata aaattgtgga 360
agaaggcaaa gtccgcaaa agccagcctg gcgccccagc gggatcccag agaaggatct 420
gcacagtgtt atggcacccct acttcttgca gcaacgggac accctgcggc gccatgtgca 480
gaaacaggag gccgagaacc agcagctggc agatgccgtc ctggcagggc ggaggcaggt 540
ggaggagctg cagctacagg tccaggccct cgag 574

```

```

<210> 2082
<211> 464
<212> DNA
<213> Homo sapiens

```

```

<400> 2082
gaattcggcc aaagaggcct agtaggattc catttccgtt tctaagtttt tagatattac 60
aaagtaccca tatatatgat aaacacttaa cccagatata aattttctcc tcttttaaaa 120
aactcagtta tgtttttgaa taataataaa aaatccacca aatgcggggg aaaaacacca 180
gtttaggaaa agccacgctg tgcaactttc acagataacc acatacgttg gagttgacct 240
ttcacatttc tttttttcca aaattagagc aaagagtcag cttaaacaaa aaaaaaaccc 300
tgaaatttac aacatggtga ttagtttaaa aaagaaacga gaagggtctc gcgaggggaga 360
cgccacaaac caagcttggg aagcaaaatc atttttgttt ctctttggca acaacaataa 420
cgaggaatct ttttagtaaa atgaagctaa agcttctcct cgag 464

```

```

<210> 2083
<211> 168
<212> DNA
<213> Homo sapiens

```

```

<400> 2083
gaattcgcgg ccgcgtcgac caaaagtttg gagtgaccag caagaggcca atagatgttg 60
gggtggggaa gaatattctc attcctgttg tatgttgacg ttccggcatg ttcagaacaa 120
cctgatgaga aattctacaa cagaaaaaat cgaaccaaga gactcgag 168

```

```

<210> 2084
<211> 547

```

<212> DNA

<213> Homo sapiens

<400> 2084

```

gaattcggcc aaagaggcct aagggttaaga agatgaccca ggttcattgtt gtgacagtgtg 60
ggattagaac ctaggcagcc tgggtccagag tatgtgctct taacaactac agtttgatat 120
cacccttttag tttttttttg tcattcagaa cggtttactt ttgcataatg tattatctat 180
tacagttagt aagacaatgc agtctcatct aaaccctaac tcatttaatc ctcaagacaa 240
ccatgtggga tagatgtgag aatttttatag atgaagtaac aggcctcagag aaatagtctg 300
ctagtccacac aactagtaag tgactgggat tcaaatcaga taggcaccaa aagctcaagc 360
tcttttttga accatttcaa ttcctttttt tgttgtgtgt ggagacggag tctcactgtg 420
ttaccacaggc tggagtgcag tggcgcgac tcagctcact gcaagctctg ccttctgggt 480
tcacgccatt ctctgcctc agcctcctga gtagctggga ctacaggcgc ccacccccac 540
cctcgag 547

```

<210> 2085

<211> 488

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (67)

<400> 2085

```

gaattcggcc aaagaggcct agaattatat atccatatat atatatatat atatatatgg 60
taaacangca cacacaattt tatccaatgc aaacaaatgt agagcatcag ttacaaaacc 120
ctcgaatagc ttgagagccc caccggctct gccacacccg tgacttcac cactgtgacg 180
tcacccgcgg gggtctcccc tgcacatttg cacacgatcc ggagagccga aggcgcggtg 240
cttctgtca catgggtgtt aatcatttgt agtttccaaa gacacgtctg catttgaatt 300
tctagatttt cgaggttaagg agttttttt taattgggtt tttggaaaat cacatcatgc 360
ctagaatctg aaattgaatt agcaagaacc gactgtttgc attttccata tatcctttta 420
tctgtctctt ttaaatgtt aattctaata atttcaaaat gcattcactg aagaaatgga 480
cactcgag 488

```

<210> 2086

<211> 513

<212> DNA

<213> Homo sapiens

<400> 2086

```

gaattcgcgg ccgcgtcgac ctgcagcccc gaccaaacc acaggaacca ggagtggacc 60
tgctggggct ggaggattat gaaataggaa gcaggagct cagatacctc tgggtggcctc 120
caactgcagg acaactctca gaattgtcaa actgaaccct taaggagtg tcacccaaaa 180
agccacata ggaagtcgac acccacaaaa ataatattg caaacaaaag ttctcacata 240
catttcacac tcattcatac tttctctctg agaaccgaga aagcctggct ccaaagagtc 300
tcagattctc atgaaaagta gagatcttag acacagctt ttcaacgaca ggggtcatac 360
gcctgggtca agacaatcaa tttgccttgt caagcaatac caaaataatc atctggcttg 420
ttacaaaagt atctccagc tccaaggga gcagaagggg cccggcagcc tgcacagcct 480
aaaccgtcga ttgaattcta gacctgcctc gag 513

```

<210> 2087

<211> 315

<212> DNA

<213> Homo sapiens

<400> 2087

```

gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt ctagacctgc ctgcagccgt 60
gcagaatata ttatcatggt aaatacagtt acaaggctgc ttctatttta tttatttttt 120
gagacggagt ctactctgt tgcacaggt ggagtgcagt ggtgcgatct tggctcactg 180

```

```

caacctccgc ctccctgggtt caagcaattc tccctgcctca gcctcccaaa gtgctgggat 240
tacaggcgctg agccactgcg ctcagcagta ttgtcatttt ctaatatattc tatttactgt 300
tggaggagcc tcgag                                     315

```

<210> 2088
 <211> 501
 <212> DNA
 <213> Homo sapiens

```

<400> 2088
gaattcagcc aaagaggcct aattgtgatt taatgtaaataaaggtttgt atagtacttt 60
tgtagttctt aagtatgaag aaatgggttaa acttttttatt ttgttagaaa ctgttatatt 120
ttgagtgtaa tttttatggt ttatagcaaa atgaatgtgc ttattgttga atgcatgtat 180
ttagaagcct ttactcagcc cctgtgttct gtgctaggag cttgagctct acaggtaagg 240
cagagctacc ggtgaatgaa aggaaatcat gtcagtgaaa aatcatggtg gaaagccccct 300
ggcatcacat gtgcatgtcg taggcaggac ctgagctgcc tccgctgcag gttcagatgc 360
accgctgcag ctgtccttca gttagttcac agggctgcaa gaggaggaca catccctcca 420
gaaaacagcc tgagccggga actggctgtg ctaaagagca ctgctatcaa gttgaggaga 480
gagggcttcc gtgcactcga g                                     501

```

<210> 2089
 <211> 465
 <212> DNA
 <213> Homo sapiens

```

<400> 2089
gaattcggcc aaagaggcct agaaccggtg ccagcactct gcgaagtacc caagaatccc 60
ctcgtttttc tttttctctt gatcatacca tcatcacctc acaacttctt cactttctct 120
tctcaagaat attaatattag tttttcccat ttaattttta gaaaaataa aggaagaaaa 180
tagcctttta atgtctgtgt gcttggcact ttccatgtta cttgtttcca tttgtagaat 240
aaccctgtga tacggctgtt aactattagt tccccctttg gaagatgagg aaattgaggc 300
tcttcttca gtagaacctg aagaatgagt tcttcatact tggctaattg agataagtgt 360
gtgttggggg aggcattcca ggtcagaggc tatccagaag ggcaactaa gaaggaaagc 420
tgggcctgcg aaaaacacac gcggaaccgc agcagcccac tcgag                                     465

```

<210> 2090
 <211> 273
 <212> DNA
 <213> Homo sapiens

```

<400> 2090
gaattcgcgg ccgcgtcgac aaataatatt tgcagtcaaa tgggtttttct tgctgtaagt 60
cctgtttag ctatgttttag gtagtggtt ctcactacc ttggagtgc taagacttac 120
ctagcaggct tgtttaaaaa gtccagattc cttagctttgt acccagggat tgccctcagg 180
ggtatgggct gtggtcctgg agtcactact tttataaata gtggttcaga gaccacagag 240
agagactgct tcactgaatt ggaagtactc gag                                     273

```

<210> 2091
 <211> 160
 <212> DNA
 <213> Homo sapiens

```

<400> 2091
gaattcgcgg ccgcgtcgac cacaagaaag acgtggctct gacagacaga caatcctatt 60
ccctaccaa atgaagatgc tgctgctgct gctgtgtttg ggactgacct tagtctgtgt 120
ccatgcagaa gaagctagtt ctacgggaag gaatctcgag                                     160

```

<210> 2092
 <211> 293
 <212> DNA

<213> Homo sapiens

<400> 2092

```
gaattcgcgg cgcgctcgac gagattaaga aatacacaaac gctgtcctat cgagcaccag 60
aaatgggtcaa cctgtacagt ggcaaaatca tcactacgaa ggcagacatt tgggctcttg 120
gatgtttgtt gtataaatta tgctacttca ctttgccatt tggggaaagt cagggtggcaa 180
tttgtgatgg aaacttcaca attcctgata attctcgata ttctcaagac atgcactgcc 240
taattaggtat tatgttggaa ccagaccctg acaaaaggcc ggaatgtctc gag 293
```

<210> 2093

<211> 262

<212> DNA

<213> Homo sapiens

<400> 2093

```
gaattcgcgg cgcgctcgac ccaaccacca agagaactat ttaccctgtt tgtagtgtac 60
acaacctttt cttttgtaag tcatatttac cttagatttg ttcaagaaaa tctgggtccc 120
acttagctgt tttagaaact agtacagaca gagactctcc tgaggaaatt agagctttta 180
tgattagaaa catgcttgtc taaaaatgag ggtcttagaa atcacacaat tgacccttat 240
gatgttgccc cctaagctcg ag 262
```

<210> 2094

<211> 197

<212> DNA

<213> Homo sapiens

<400> 2094

```
gaattcgcgg cgcgctcgac cttacattat cttcttgatt atttttcttt aagatgcaag 60
tccatggatt ctattctgtt aggtattttg ctttcttcc tttttatttt ttagagacaa 120
ggactcactg tgttgcacag gctgggtattg aactcctggg ctcaagtggg cttctcactt 180
cagcctcccc cctcgag 197
```

<210> 2095

<211> 190

<212> DNA

<213> Homo sapiens

<400> 2095

```
gaattcgcgg cgcgctcgac aaaattctca ggctttacag caagcaaact tcactatgat 60
ttttacaatt ctgattctgt atccccctggg ggttatccca gttgcttctt taggatgggg 120
tttattacgt tgtacatata tcccgatgtg tctgtgtgaa tctttgtctt ttttggggga 180
ggggctcgag 190
```

<210> 2096

<211> 222

<212> DNA

<213> Homo sapiens

<400> 2096

```
gaattcgcgg cgcgctcgac ggatatagaa ccttgacat ccattgcatg aagtattcca 60
ttcatgaagg acagactgtt caagttgatg accactactg tggtgaccag cttaaaccct 120
ctacccaaga actatgccat ggtaactgtg tcttcacaag atggcattat tcagaatggg 180
ctcagtgttc caggagttgt ggaggagggg aaaggtctcg ag 222
```

<210> 2097

<211> 187

<212> DNA

<213> Homo sapiens

<400> 2097

```

gaattcgcgg ccgcgctcgac tgaaggattt tggactcttg tgaatgggtg actggacttg 60
gcttttacaga gctgggtgct tttttctctc tgcaattacc tgcatagca ttttgtgctc 120
accacgaagg atggtctctg ctttctcttg tcgggtgatg ccatctgaac ctaggaacta 180
cctcgag 187

```

<210> 2098

<211> 235

<212> DNA

<213> Homo sapiens

<400> 2098

```

gaattcgcgg ccgcgctcgac gtaaaagcta aaatccttat aagaccctgt gtgataggcc 60
catgattcat ttcttgacct cttttctgct gcactctttg tccttctacc cattcattcc 120
ctcttttgcta tcccttgaac atgtcaggca tgctcctgcc ttggtgagtg gtggccttag 180
ctcttctggt tgtaacactc ttgccacagc taaccctta actctccac tcgag 235

```

<210> 2099

<211> 199

<212> DNA

<213> Homo sapiens

<400> 2099

```

gaattcgcgg ccgcgctcgac tatatatata tttttgtatg tatacatata tacatcctct 60
atttgacagg ggaagaagag ggtgtctggc atttattagg gacctaaata agttcagaat 120
attatgttta atctccttga ctacctattt agttacgtat ctctccact ttgctgatga 180
gaaaaatgag gctctcgag 199

```

<210> 2100

<211> 211

<212> DNA

<213> Homo sapiens

<400> 2100

```

gaattcgcgg ccgcgctcgac acaagatccc gaaggacagc atgacgcttc tgccctgctt 60
ctacttcgtg gagctgccc tagtggcttc ttccatcgta tccttgact tcctggagct 120
gaccgacctc ttcaagccgg ccaaggtggg cttccagtgc tatgaccgca ctctctccat 180
gccctacgtg gagaccaacg aggagctcga g 211

```

<210> 2101

<211> 223

<212> DNA

<213> Homo sapiens

<400> 2101

```

gaattcgcgg ccgcgctcgac tgaaacattt ttgatacata acagacctca gtctttttta 60
aaaattaata tattttcagg cgtatttttg tacagtgaag agggaaacatt cttgctgtgt 120
tttttcagta agactttcag gcactttctc ctttttgatt tctttttttt cctctgtttt 180
ttagcatgca agtatgttg tacgttatgt cctggttctc gag 223

```

<210> 2102

<211> 256

<212> DNA

<213> Homo sapiens

<400> 2102

```

gaattcgcgg ccgcgctcgac cataaatttt cttcacccca aatattccgt ttgatagtgt 60
aagatttggt tcctgaactt tcgattcaaa ctagaaatcc actatcattt atttatttat 120
tttttatatt ttgagacaga ggcttgctct gtgcgccagg ctggagtgtg ttggtgcat 180
ccctctagc cctttcctgt ccgctttgct cttgtttctc tatctccagc catctctggc 240
tcacaccgac ctcgag 256

```

<210> 2103
 <211> 286
 <212> DNA
 <213> Homo sapiens

<400> 2103
 gaattcgcgg ccgcgtcgac aaatgaagtt cgttctgctg ctttccctca ttgggttctg 60
 ctgggctcaa tatgaccac atacttcaga tgggaggact gctattgtcc acctgttcga 120
 gtggcgctgg gttgatattg ccaaggaatg tgagcgatac ttagctccta agggatttgg 180
 aggggtgcag gtctctccac ccaatgaaaa cgttgtagtt cataacccat caagaccttg 240
 gtgggaaaga taccaaccaa tcagctataa aatctgcaca ctcgag 286

<210> 2104
 <211> 238
 <212> DNA
 <213> Homo sapiens

<400> 2104
 gaattcgcgg ccgcgtcgac gaaggcaagc ggtgattgtt tgtagacggc gctttgtcat 60
 gggacctgtg cggttgggaa tattgctttt cctttttttg gccgtgcacg aggccttgggc 120
 tgggatgttg aaggaggagg acgatgacac agaacgcttg ccagcaaat gcgaagtgtg 180
 taagctgctg agcacagagc tacaggcgga actgagtcgc accgatcaat ctctcgag 238

<210> 2105
 <211> 289
 <212> DNA
 <213> Homo sapiens

<400> 2105
 gaattcgcgg ccgcgtcgac gagagataat aattgttcaa cctgaattga aatcacttgc 60
 actgggtttc cactcaatgg ttatacgagc actaggagga attctagctc caatatattt 120
 tggggctctg attgatacaa cgtgtataaa gtgggtccacc aacaactgtg gcacacgtgg 180
 gtcatgtagg acatataatt ccacatcatt ttccctcagat tccagttcag aaatgagcat 240
 tctcttcacc atcgcacact cagcaaaatc tgattcccct gagctcgag 289

<210> 2106
 <211> 231
 <212> DNA
 <213> Homo sapiens

<400> 2106
 gaattcgcgg ccgcgtcgac cgattgatta ttcaaccagg atacctaatt caagaactcc 60
 agaaatcagg agacggagac attttgtcag ttttgaaca ttggacaaa tacaatgaag 120
 tattcttgct gtgctctggt tttggctgtc ctgggcacag aattgctggg aagcctctgt 180
 tcgactgtca gatccccgag gttcagagga cggatacagc aggaactcga g 231

<210> 2107
 <211> 212
 <212> DNA
 <213> Homo sapiens

<400> 2107
 gaattcgcgg ccgcgtcgac cgtcgattga attctagtgt tgtctcctag atgttctatt 60
 cgaggataaa ttatctattc ataatttttg ttcttcttct tagagagggg ggggtgtctga 120
 tgtctctagt cagccatcct gaaccagaat cccaccata ttttaaatcc ctgcttggtg 180
 ccctggtatt tgacatcccc aaatcactcg ag 212

<210> 2108
 <211> 231
 <212> DNA

<213> Homo sapiens

<400> 2108

```
gaattcgcgg cgcgctcgac ctctgaatca caccacattc tgtctttttc cacacaactc 60
agtataaaac tcctgaagta cgtgggttatt acgttgcaag aaaacatgag ccacagtcac 120
tcttccaaca ttctcttgac taatgtaaaa ttgacgtttg gtgctctgtt tctgtgcctt 180
tgtgcctatg cactaccttt ccatttcagt gctgaatcac ggacactcga g 231
```

<210> 2109

<211> 167

<212> DNA

<213> Homo sapiens

<400> 2109

```
gaattcgcgg cgcgctcgac agaaattagg attaccgaaa atactgaaga aagactacct 60
ctgattggac tcttctcaag gaattaataa ttcaagaact aaggaaagaa aaaagtgatt 120
atatgaaaat actgaagttg atcgtagcag ctgaaggcat tctcgag 167
```

<210> 2110

<211> 300

<212> DNA

<213> Homo sapiens

<400> 2110

```
gaattcgcgg cgcgctcgac cgtcgattga attctacacc agctaacaga aaaaaagttt 60
catcaaatgt tattatatag ttcatgggac caccagaga tccagagaat cagatttgaa 120
ggctacacag tcaagagttt tgccaggact gtgctgggtg gaccactctt gcactggctg 180
tgctggacgt ttgactttcc tattaggagt tctgaaacag ctccctctgc agggcagatg 240
gctttcacc aggtcatgat aaaatccgcc tggcacctgc ctccctcacag tcacctcgag 300
```

<210> 2111

<211> 152

<212> DNA

<213> Homo sapiens

<400> 2111

```
gaattccggc cgcgctcgac gtttaattgac ttatgtcatt tggagcaatg aaactattaa 60
caccaggtat attcagttcc tgcccttacc tatattttct tatcttgaa ggggattgct 120
gtccctcacc atttatctca cagcaactcg ag 152
```

<210> 2112

<211> 209

<212> DNA

<213> Homo sapiens

<400> 2112

```
gaattcgcgg cgcgctcgac cagctttgtg aagtcctgc tctctgtggg tctatgagtc 60
agcagcaaca ttggcctaac ctccgtccca gcctcctggc tcaccacatg tgtacagtgc 120
tgtttgagcgt tgtaactcatt atccatccat ctctctgcca tccccaagca tcgctgggtg 180
taaaacgcaa actccccacc gacctcgag 209
```

<210> 2113

<211> 265

<212> DNA

<213> Homo sapiens

<400> 2113

```
gaattcgcgg cgcgctcgac cctagggcct aaagatgctg aggtctgtat ggaattttct 60
gaaacgccac aaaaagaaat gcattctcct gggcacggtc cttggaggag tatatatctt 120
ggggaaatat ggacagaaga aaatcagaga aatacaggaa agggaggctg cagaatacat 180
```

tgcccaagca cgacgacaat atcattttga aagtaaccag aggacttgca atatgacagt 240
gctgtccatg cttccaacac tcgag 265

<210> 2114
<211> 292
<212> DNA
<213> Homo sapiens

<400> 2114
gggtctactac ttcacatcatgg cttgtgacca atacagctgc gccctgaccg gccctgtggt 60
ggacatcgtc accggacatg ctcggctctc ggacatctgg gccaaagactc cacctataac 120
gaggaaagcc gccagctct atacctgtg ggtaaccttc cagggtgcttc tgtacacgtc 180
tctccctgac ttctgccata agtttctacc cggctacgta ggaggcatcc aggagggggc 240
cgtgactcct gcaggggttg tgaacaagta tcagatcaac ggtcctctcg ag 292

<210> 2115
<211> 145
<212> DNA
<213> Homo sapiens

<400> 2115
gaattcgcg cgcgctcgac caataaagtt caagaaaaaa gaggtgctgt ctatgaacga 60
gtaaccacaa ttaatacaga aatccaaaaa attaaacttg gaattcaaca actaaaagat 120
gctgctgaaa gggagggtac tcgag 145

<210> 2116
<211> 437
<212> DNA
<213> Homo sapiens

<400> 2116
gaattcgcg cgcgctcgac gcttcattga aaagtacctc tactctggct atgctgaact 60
ttggtcaaag tgctattttc agtgtcgggt taacagctat aatgggtgctc gccagtcagg 120
gaattgtggc aggtaccctt actgttggag atctagtaat ggtgaatgga ctgctttttc 180
agctttcatt acccctgaac tttctgggaa ctgtatatag agagactaga caagcactca 240
tagatatgaa caccttgttt actctactca aggtagacac ccaaattaaa gacaaagtga 300
tggcatctcc ccttcagatc acaccacaga cagctaccgt ggcctttgat aatgtgcatt 360
ttgaatacat tgaggggccag aaagtcctta gtggaatatc ctttgaagtc cctgcaggaa 420
agaaaggggc gctcgag 437

<210> 2117
<211> 249
<212> DNA
<213> Homo sapiens

<400> 2117
gaattcgcg cgcgctcgac gcatactcag ctttttactt agtgtcagtt gaggcatact 60
ctcaaaagtt ttttccccta aaatatcttt caagttatta ctggtatttg aaatttcaag 120
tttagaaatt cattttcttt taactcaaag tgcaaatctc atataatgat tatgatggtt 180
ttagtgtcca tatttttgtg gcttcactta tcatctcttt cagcagtagc taccacagat 240
caactcgag 249

<210> 2118
<211> 211
<212> DNA
<213> Homo sapiens

<400> 2118
gaattcgcg cgcgctcgac gatccgtgag tgaagtaggc atatatcaat aagctgtggc 60
tggaattgat taggaagcat ttggtagaag gactgaacaa ctggtgggat atatatatat 120

atatataatt tttttttttt aaattcctgg tggatactgt agaagaagcc catatcacat 180
gtggatgctg agacttcacg ggctactcga g 211

<210> 2119

<211> 318

<212> DNA

<213> Homo sapiens

<400> 2119

gaattcgcgg ccgcgctcgac ctctgcggca gagtccttag tggaggggtt tacctggaac 60
attagtagtt accacagaat acggaagagc aggtgactgt gctgtgcagc tctctaaatg 120
ggaattctca ggtaggaagc aacagcttca gaaagagctc aaaataaatt ggaaatgtga 180
atcgcagctg tgggttttac caccgtctgt ctgagagtcc caggaccttg agtgtcatta 240
gttactttat tgaagggttt agacccatag cagctttgtc tctgtcacat cagcaatttc 300
agaaccaaatt cgctcgag 318

<210> 2120

<211> 401

<212> DNA

<213> Homo sapiens

<400> 2120

gaattcgcgg ccgcgctcgac cgttattggc aaatacatat aaataaacat ataaccggaa 60
cacgtttttc cccttttatcc aatggaaata cgatcaagca tcactcttag cagaagacta 120
ccagacactt gttagggacac gaaaagtgat aataaaaaaca atttatttat tgaatgcttg 180
ctatagacca gatgctcttc taagcacttt gtaattattt tatcttgaaa gcagtcctgt 240
atttataatc attacctctt cttacagatg tgggaagacgt gactcagttt cctgattacc 300
cagggtcaca taacatgtgt ggagaaggca ggatttacc cctcagtcgg cagttcatgc 360
tcttaaccat aatgctgtac tcctcaaacc tgccactcga g 401

<210> 2121

<211> 302

<212> DNA

<213> Homo sapiens

<400> 2121

gaattcgcgg ccgcgctcgac ggggttaggtg ggcggcacag ctggggactg aggggtgctgg 60
ttgctgtgga caggcttgga gccgtttttg gctggagact ggctgacttc actgtctgtg 120
gaacgtcccc tcttcttacc atcttcagag ttttccgtgg tacagttggc tgggctgggc 180
gggatgggag agctggaggt ggttgaggtg ggcgtgctgc tggactggtt gaagatctca 240
tcctccatgt ggcgtggtg ggggggggag gtggcgacca gcgcctgtgg aatgtcctcg 300
ag 302

<210> 2122

<211> 187

<212> DNA

<213> Homo sapiens

<400> 2122

gaattcgcgg ccgcgctcgac ctttgtggca ttctgaaata ggattcatga tgatgcctgt 60
tgatcttagg gacactacct cacctgccag tatctttggg gctgtgtcct tcaaggacat 120
gtccccagac tgctgtgcag tgcatTTTT tgtgtttggg ttgggtgtgg cttcttcccc 180
cctcgag 187

<210> 2123

<211> 195

<212> DNA

<213> Homo sapiens

<400> 2123

```

gaattcgcg cgcgctcgac attgaattct agacctgcct cgagggccat tctcctcctg 60
atgttggtcg ctttattatt tcatttattg tgttttttcg ggaatccgga tctacacggg 120
acacccaaaac tggttgacac gcccgtaaca gtctgccaat cagagggact tgtgcattct 180
caggttctcc ctata 195

```

```

<210> 2124
<211> 358
<212> DNA
<213> Homo sapiens

```

```

<400> 2124
gaattcgcg cgcgctcgac aatacctcca aaataccctt gacatttgtc ccgttgccat 60
ttcctttttc cagtcttagt caccagttac ctgttccact actaacaggc tgccttactt 120
tctactttca tttgttcaat caattttcta cctgtaccc ataatactcc taaaacacag 180
gtctgatcca gtgaagcctg acagaaaagc ttctctttcc tcattgcaca tagaataaag 240
cctcaatttt tatatttttc aaggggacttt gcaatcttaa ccagttctac ttgttcattc 300
tatctcctac cttgccatgc acctcatatt tttgtcattt cttctgctac cccctccg 358

```

```

<210> 2125
<211> 226
<212> DNA
<213> Homo sapiens

```

```

<400> 2125
gaattcgcg cgcgctcgac tgtttatttg ccacagatca aagggttcaca aagtatatca 60
aatttacatc tacttggggc accttgatag attattattg ttttctttt atctttccct 120
tcagggaattt ggaaactcgt tgtcactttt ttttaattta aaaatactaa attgtaatag 180
tttctctttg ccaaatatgt acgcacacat ttgggttctc cctata 226

```

```

<210> 2126
<211> 183
<212> DNA
<213> Homo sapiens

```

```

<400> 2126
gaattcgcg cgcgctcgac gtgaatttaa ggttggtgatt tttgtttttg acttttttaa 60
gacttttatt atttagagca gcttttaggtt cacagcaata ttgagaggat ggtacagaga 120
tatctcatat acttctact cccacacata cagaggctg catttttagt agggggccctc 180
gag 183

```

```

<210> 2127
<211> 343
<212> DNA
<213> Homo sapiens

```

```

<400> 2127
gaattcgcg cgcgctcgac accagttgct acccaagcat tgtgccaaaa ctatcagtca 60
agcagtgaat aagaaatcaa aaaagcagac tggtaagaaa ggggaacctg aaaggagaga 120
accaggtggt gagagcatga ggaaaaacag gctgggtgtg accaaccttg ataaattgca 180
cactgcactt tctgagttat gcttctctat aaattatgta ccaaacatgg tgggatggga 240
acataccttt accccacgag aatatttgac ttctcatctg gaaatacgct ttaccaagtc 300
aattgttggg atgactatgt ataataaagc cacacacctc gag 343

```

```

<210> 2128
<211> 242
<212> DNA
<213> Homo sapiens

```

```

<400> 2128
gaattcgcg cgcgctcgac gctgtattca tcttccatat agaaactcta taaccattaa 60

```

```

gcaataactc cctcattctc ccttcacttt cagctcctgg taaattctgt tcaacttcct 120
gtatgaattt gcctattcta gatatttcat gtaaattgaa tcatacaata tttgtccttt 180
tgtgtcttct tatttcattt agcataatgt tgggtgtcat ccattatgag gcaatcctcg 240
ag 242

```

```

<210> 2129
<211> 142
<212> DNA
<213> Homo sapiens

```

```

<400> 2129
gaattcgcgg ccgcgtcgac cgaaaaatta tttattcaag tgaaagggaa gaaaagtcgt 60
catcaaaaag aggattccct ttcttggagt aatagtgcct atttatcctt ggatgatgat 120
gctttcacgg ctcaccctcg ag 142

```

```

<210> 2130
<211> 298
<212> DNA
<213> Homo sapiens

```

```

<400> 2130
gaattcgcgg ccgcgtcgac ctgaataatc tcagttaacc tgtctttaag ttcactgact 60
attctgcctg ctgaatctg ctattgaaat cctctagtga tttttttatt aaaaaaaaaa 120
aatggagaca cagaagctgg gcagcctcca tggggcttcc acacactggg gcttgcttcc 180
ggcccccagc gactccaagg ggatgagtga atttaactgg caaggagcaa tctgctgtca 240
ccctgggcct ctggaatcct ggcaggaaga ggccccacga ccaccacgga cactcgag 298

```

```

<210> 2131
<211> 187
<212> DNA
<213> Homo sapiens

```

```

<400> 2131
ggtctcaaac tcctgggctc aaatgatctg cccaccttgg cctctcacag tgctgttatt 60
acagggtaca gccaccgcac ctgacctccc tagcacattt aaattttggg atgtttctag 120
tgataatctc agtattgtat atttgttttg ttttttttgg gggaaaaagg aaacaggcgt 180
gctcgag 187

```

```

<210> 2132
<211> 376
<212> DNA
<213> Homo sapiens

```

```

<400> 2132
gaattcgcgg ccgcgtcgac cccatcagct gctctgaagc tccatgggtg ccagaatctt 60
cgctcctgct tatgtgtcag tctgtctcct cctcttgtgt ccaagggagag tcacgctcc 120
cgctggctca gaacctggg tgtgccagcc ggcaccagg tgtggagaca agatctacaa 180
ccccttggag cagtgtgtt acaatgacgc catcgtgtcc ctgagcgaga cccgccaatg 240
tggtccccc tgacacctct ggccctgctt tgagctctgc tgtcttgatt cctttggcct 300
caciaacgat tttgttgtga agctgaaggt tcagggtgtg aattcccagt gccactcatc 360
tcccaactca ctcgag 376

```

```

<210> 2133
<211> 390
<212> DNA
<213> Homo sapiens

```

```

<400> 2133
gaattcgcgg ccgcgtcgac caacaagatc tccagacctt acaagatggc cgccaccag 60
actgggacct gcctcatggt ggcagccttg tgctttgttc tgggtgctgg ctcctcgtg 120

```

```

ccctgccttc ccgagttctc ctccggctcc cagactgtga aggaagaccc cctggccgca 120
gacggcgctc acacggccag ccagatgccc tcccgaagcc tcctattcta cgatgacggg 240
gcaggcttat ggggaagatgg ccgcagcacc ctgctgccc aaggagccccc agatggctgg 300
gaaatcaacc ccggggggcc ggcagagcag cggccccggg accacctgca gcatgatcac 360
ctggacagca cccacgagac cacgctcgag                                     390

```

<210> 2134

<211> 235

<212> DNA

<213> Homo sapiens

<400> 2134

```

gaattcgcg cgcgctcgac ctttcatttt ctcaatattc tgcacagatt taaatactta 60
ttatttggtt gacattcccta ggtacttgat atttttgatg ctgttgtaaa tgatgccttt 120
aacatttatt tcactttggt tgttgctgac atatagaaat aaaactggct gggcacgggtg 180
gtcacacct gtaatccag cacttcggga ggccaaggcg gggcaaatcc tcgag          235

```

<210> 2135

<211> 225

<212> DNA

<213> Homo sapiens

<400> 2135

```

gaattcgcg cgcgctcgac ataaaaccgg cccggttctg tggaaagtgg gcggcgggagc 60
cagggtccct ggaatggcgg agactctgtc aggcctagggt gattctggag cggcggggcgc 120
ggcggctctg agctccgect cgtcagagac cgggacgcgg cgctcagcg acctgcgagt 180
gatcgatctg cgggcgggagc tgaggaaacg gaatgtggac tcgag          225

```

<210> 2136

<211> 206

<212> DNA

<213> Homo sapiens

<400> 2136

```

gaattcgcg cgcgctcgac gaaagttctt agaaagtggg tatgtggctg gcctcagata 60
aggataaatt gctgagaaga aggagtggg tttttttgt gttttttgt ttcttgtttt 120
tgagacgggg tcttgctctg tctcccaggc tggagtgcag tgggtgcgat acagctcact 180
gcagcctcaa cctcccaata ctcgag                                     206

```

<210> 2137

<211> 156

<212> DNA

<213> Homo sapiens

<400> 2137

```

gaattcgcg cgcgctcgac ccaactgtca gccagaatgg tactcccaat ttgtttaatg 60
ttttcgctgc tagttgcagt aattcctttg cactcttccg aaaggccaca gcttccacag 120
tgttatcatc aaggtactgc tgaaagaatg ctcgag                                     156

```

<210> 2138

<211> 441

<212> DNA

<213> Homo sapiens

<400> 2138

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ctactagaac aagagaaaac gtttttctact ctttttagtat tactaggcta tttgtcatgt 180
aaagtgactt gtgaatcagg agactgtaga cagcaagaat tcaggggatcg gcttggaac 240
tgtgttcctt gcaaccagtg tgggccaggc atggagttgt ctaaggaatg tggcttcggc 300

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tatggggagg atgcacagtg tgtgacgtgc cggctgcaca gggtcaagga ggactggggc 360
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 tgttcagcca ccacccctga g 441

<210> 2139
 <211> 112
 <212> DNA
 <213> Homo sapiens

<400> 2139
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 taaactacat cctgaactcg acgtcctgag gtataataaa acagagctcg ag 112

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 <211> 128
 <212> DNA
 <213> Homo sapiens

<400> 2140
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 cgctcgag 128

<210> 2141
 <211> 190
 <212> DNA
 <213> Homo sapiens

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 gctcacgcct gtaatcccag cactttggga ggccaaggcg ggtgaaccac ctgaggtcag 180
 gaatctcgag 190

<210> 2142
 <211> 119
 <212> DNA
 <213> Homo sapiens

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<210> 2143
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 <213> Homo sapiens

<400> 2143
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 atctcgag 128

<210> 2144
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 <212> DNA
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<400> 2144
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agccatttag tcctaataata cataccaatg agacaattaa aaattggttg gaagatggtg 120
ctcgag 126

<210> 2145
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<212> DNA
<213> Homo sapiens

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aggcaacctc agtataggaa ctgccacttt gagcagttta ggtcttaaag agaaagtcaa 180
tctaagtcca ataggagaac tcgag 205

<210> 2146
<211> 104
<212> DNA
<213> Homo sapiens

<400> 2146
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ttttctcttt taacattatc tctaccttt catgtcagct cgag 104

<210> 2147
<211> 160
<212> DNA
<213> Homo sapiens

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aatccaggcg actacaatta gcagctttcc ccaactgaag aggcacaaag gtaaagaaac 120
tgcggaatg aaagctgatc tcttgagggc cactctcgag 160

<210> 2148
<211> 131
<212> DNA
<213> Homo sapiens

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agcttattat ttcagaaatt aatttaggaa ataattatta aaacatgttg gctacagtag 120
cacttctcga g 131

<210> 2149
<211> 168
<212> DNA
<213> Homo sapiens

<400> 2149
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atttatacct gaaaaatgtt ccttaatgtt ttaaaccctt tactgtgttt ttattcctct 120
aacttcctta atgatcaatc aaaaaaagta acaccctccc cgctcgag 168

<210> 2150
<211> 159
<212> DNA
<213> Homo sapiens

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tgctttgtat gcctcctttt caggggtgggc atctcccttg cttttgagcg ccacccacct 120
cgtggccttc tggaggccaa gtccgctgtg ctctctcgag 159

<210> 2151
<211> 102
<212> DNA
<213> Homo sapiens

<400> 2151
gaattcggcc aaagaggcca ttcaaaaatg ataaacatac tggctgttgt ggtgacaatg 60
acccaattga tgtgtgtgaa attggaagca aggtcactcg ag 102

<210> 2152
<211> 120
<212> DNA
<213> Homo sapiens

<400> 2152
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gtgatattta tcttgagcac tgcaatctca ccccccccg cccaccaagg gaatctcgag 120

<210> 2153
<211> 134
<212> DNA
<213> Homo sapiens

<400> 2153
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ttttggcata cattttgttc ttagaagtat ctggatcaca ggataaaaac agaaacgttg 120
gcacaaccct cgag 134

<210> 2154
<211> 144
<212> DNA
<213> Homo sapiens

<400> 2154
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tgttcaaagg tcaaataaaa acctagtctc cttttattct actttctatt cttagctaga 120
atgaaactca gcatattact cgag 144

<210> 2155
<211> 105
<212> DNA
<213> Homo sapiens

<400> 2155
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ctttactgga tacataagtg ttcagtgaat gggaaacctc tcgag 105

<210> 2156
<211> 117
<212> DNA
<213> Homo sapiens

<400> 2156
gaattcggcc aaagaggcca ttcaaaaatg gagacagcta ttgccttgt actttttcca 60
caattgttgc tgctagtgtg acacatctct agttcagctc ttgccacag actcgag 117

<210> 2157

<211> 117
<212> DNA
<213> Homo sapiens

<400> 2157
gaattcggcc aaagaggcca ttcaaaaatg ttgaaggagt tgggtgttgct gaattgcttt 60
ttaacacaat tcaggcagct gacattgata ccagatctga attctacaaa cctcgag 117

<210> 2158
<211> 105
<212> DNA
<213> Homo sapiens

<400> 2158
gaattcggcc aaagaggcca ttcaaaaaag tgtcagacaa aaatttaact ttttatgaga 60
tttcagtttt tgaatacac aactcttaca gcacaaacac tcgag 105

<210> 2159
<211> 156
<212> DNA
<213> Homo sapiens

<400> 2159
gaattcggcc aaagaggcca ttcaaaaatg ggacctgtga agcaactgaa gaaaatgttt 60
gaagcaacaa gattgcttgc aacaattgtt atgcttttgt gtttcatatt taccctgtgt 120
gctgctcttt ggtggcataa gaagggacaa ctcgag 156

<210> 2160
<211> 104
<212> DNA
<213> Homo sapiens

<400> 2160
gaattcggcc aaagaggcca ttcaaatatc aatttgaaaa gaaaactatt ttttttaaat 60
attccattgt taactgaatg ttactgtttc cactcctact cgag 104

<210> 2161
<211> 129
<212> DNA
<213> Homo sapiens

<400> 2161
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gttctcgag 129

<210> 2162
<211> 117
<212> DNA
<213> Homo sapiens

<400> 2162
gaattcggcc aaagaggcca ttcaagaaa ttaactgaac aaataaaaag tttttgatat 60
aacttcaatt aattgtacca catgctaata ctgaagagat gtgtagatat cctcgag 117

<210> 2163
<211> 101
<212> DNA
<213> Homo sapiens

<400> 2163
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attctatggt cttttttgca tactttaacg tcactctcga g 101

<210> 2164
<211> 102
<212> DNA
<213> Homo sapiens

<400> 2164
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acttttttat tgtaaagaat atttattatg cgaatcctcg ag 102

<210> 2165
<211> 130
<212> DNA
<213> Homo sapiens

<400> 2165
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gggtatcctg atgatggcaa atgtcttcat ttattttatt atggaagtct ccaaaagcag 120
aagcctcgag 130

<210> 2166
<211> 104
<212> DNA
<213> Homo sapiens

<400> 2166
gaattcggcc aaagaggcca ttcaaaactag cactttatct taaaaagtaa cttattaatc 60
acacattgat ggtacacctt gtatttagca aatgtttgct cgag 104

<210> 2167
<211> 116
<212> DNA
<213> Homo sapiens

<400> 2167
gaattcggcc aaagaggcca ttcaaaaaca aaggtatggt gtttttcttc cttttgggta 60
aacatatatc ctttatatat atgacatttc atgccacata tgcaaacaca ctcgag 116

<210> 2168
<211> 112
<212> DNA
<213> Homo sapiens

<400> 2168
gaattcggcc aaagaggcca ttcaaaaaac aaagatgtat ggcttatttc aaacatcatt 60
ttactttgga tatatggcgg tatttagcac agccttgggg aacactctcg ag 112

<210> 2169
<211> 167
<212> DNA
<213> Homo sapiens

<400> 2169
gaattcggcc aaagaggcca ttcaaagaca cagtatacat tcttctttga atctgtgtga 60
tattttgaac tctgtgttga gctcttcaca tcttgaatta aatgaggaaa ttaattgtgt 120
tgatatacct aatgctaaat gacgagttaa tgggcgcagc actcgag 167

<210> 2170
 <211> 139
 <212> DNA
 <213> Homo sapiens

<400> 2170
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 tcttggtacc ctggttagtc tgggtgatcc aatacttttt ggtcggattg ccatgcagca 120
 tcatgataat gcactcgag 139

<210> 2171
 <211> 110
 <212> DNA
 <213> Homo sapiens

<400> 2171
 gaattcggcc aaagaggcca ttcaaaaaaa tggtctctaa atattttctg cttcttgag 60
 gtctcttttt actagatcat ggctgttctt cccaccccat cctctcgag 110

<210> 2172
 <211> 101
 <212> DNA
 <213> Homo sapiens

<400> 2172
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 tattcttagc tagaatgaaa ctcagcatat atacactcga g 101

<210> 2173
 <211> 105
 <212> DNA
 <213> Homo sapiens

<400> 2173
 gaattcggcc aaagaggcca ttcaaaaaaa acatttcaga ttttaatccg aatttagcta 60
 atgagactgg atttttgttt tttatgttgt gtgtcacaaac tcgag 105

<210> 2174
 <211> 107
 <212> DNA
 <213> Homo sapiens

<400> 2174
 gaattcggcc aaagaggcca ttcaaaatga gagatataat ttacaaattt ttttattcta 60
 tgggtttttc tttcactttc ttgatttcct tggagcacga cctcgag 107

<210> 2175
 <211> 145
 <212> DNA
 <213> Homo sapiens

<400> 2175
 gaattcggcc aaagaggcca ttcaaaaaaa cgattggaga aaggtggtaa agctgaacat 60
 gaaaatcttt ttcgtgagaa tgattgcatt gtcaggatta atgatggcga ccttcgaaat 120
 agaagatttg aacaagcatc tcgag 145

<210> 2176
 <211> 122
 <212> DNA
 <213> Homo sapiens

<220>

<221> unsure

<222> (56) .. (57)

<400> 2176

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ttgaatgtgt atttttcttt agtgaaatga tgttttatgt tattatgtgt gaagtactcg 120
ag                                                    122

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<210> 2177

<211> 121

<212> DNA

<213> Homo sapiens

<400> 2177

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gaattcggcc aaagaggcca ttcaaaatat ttgtatttc aaaagatttc tacttttagc 60
agacaactga aaaagttatt ttctaattct tgaaatgtac actacatccc tcatcctcga 120
g                                                    121

```

<210> 2178

<211> 126

<212> DNA

<213> Homo sapiens

<400> 2178

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gaattcggcc aaagaggcca ttcaaaaacg gtgaaagaga atccctgttg tactttatct 60
ttttgtaata ttatttttga atttttcatt atgttgcttt tgaaatttga tgcattcctc 120
ctcgag                                                    126

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<210> 2179

<211> 115

<212> DNA

<213> Homo sapiens

<400> 2179

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gaattcggcc aaagaggcca ttcaaaaaaa taaaatgaaa aatctttttt taataatttc 60
atccctatct atagttttta tattaatttg tttttcttat ccaagatata tcgag      115

```

<210> 2180

<211> 114

<212> DNA

<213> Homo sapiens

<400> 2180

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gaattcggcc aaagaggcca ttcaaaaatg cgtttctggt tagctctgat gctcagcact 60
tggcttgag agggaggcca ggaggctggg gccgggttag cgcgtgaact cgag      114

```

<210> 2181

<211> 144

<212> DNA

<213> Homo sapiens

<400> 2181

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gaattcggcc aaagaggcca ttcaaaaata aaagcagagg aagaaaaatt caatagtttt 60
aaactgcttt acaattataa acaaaaaaag attatacaga aaattaactg acaaatgaga 120
aaaatatttg caacaactct cgag                                                    144

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<210> 2182

<211> 105

<212> DNA

<213> Homo sapiens

<400> 2182

gaattcggcc aaagaggcca ttcaaaaatt cagagaggat tcattggata gcgttctttt 60
tttaaagaag attgatagat gctggcaaaa ccattgctac tcgag 105

<210> 2183

<211> 135

<212> DNA

<213> Homo sapiens

<400> 2183

gaattcggcc aaagaggcca ttcaaatgat gtgcaaatta gctttttatc ttctagcatt 60
tttttactac ctatatggca tgatctatgt ttggtgagc tcttagaaca acacacagaa 120
gaattgaacc tcgag 135

<210> 2184

<211> 117

<212> DNA

<213> Homo sapiens

<400> 2184

gaattcggcc aaagaggcca ttcaaaaaca ccctgaaatc tattttgaaa agaaaaggca 60
ccagtgatat cagtgatgaa tctgatgaca ttgaaatttc ttccaagtct actcgag 117

<210> 2185

<211> 113

<212> DNA

<213> Homo sapiens

<400> 2185

gaattcggcc aaagaggcca ttcaaaatga tgatgggtct tcctttattg atatttgtgc 60
ttctgcctaa agtgggtcaac acaagtgatc ctgacatgaa acggcgtctc gag 113

<210> 2186

<211> 113

<212> DNA

<213> Homo sapiens

<400> 2186

gaattcggcc aaagaggcca ttcaaaaata ctggatcttt taaaaaacag tgtcaaataa 60
gcttagtggtt aggttggtctg atgagaacca atctaataatg gggagcactc gag 113

<210> 2187

<211> 108

<212> DNA

<213> Homo sapiens

<400> 2187

gaattcggcc aaagaggcca ttcaaaaatg tttgtttcta agtatttttg tattgtgtac 60
attctgtata tttttgttgt aacatattat ttgagcacia gactcgag 108

<210> 2188

<211> 114

<212> DNA

<213> Homo sapiens

<400> 2188

gaattcggcc aaagccaaag aggccattca aaagacttgg ataacttttg ataaaagact 60
aattcaaaaa tggccacttt gttcctgtct ttaatatcta aataacttact cgag 114

<210> 2189
<211> 187
<212> DNA
<213> Homo sapiens

<400> 2189
gaattcggcc aaagccaaag aggccattca aagattccta cagcgaatga tcaccgctcc 60
ctgcatcctc ttctgtttt atgggtcagt attacccttc acctgtcgtc tggcaattcc 120
catctctgcc tccaaactag ccctagcccg gagaccctc ctcttctcca actaccaca 180
gctcgag 187

<210> 2190
<211> 110
<212> DNA
<213> Homo sapiens

<400> 2190
gaattcggcc aaagaggcca ttcaaaaaag aatagtagta actgtttcat agcaaacttc 60
aggactttga gatgttgaaa ttacattatt taattacagg gctcctcgag 110

<210> 2191
<211> 106
<212> DNA
<213> Homo sapiens

<400> 2191
gaattcggcc aaagaggcca ttcaaaaaat gaagcttga aagattttca tggttctctt 60
cttcgatttt atgaaaatgg agaactctgt gatgccacc ctcgag 106

<210> 2192
<211> 105
<212> DNA
<213> Homo sapiens

<400> 2192
gaattcggcc aaagaggcca ttcaaaaaat ttcagttgga tttttagaag taacttaata 60
ctctaaaatt tatatggaaa aatgaaggtt cccaatttgc tcgag 105

<210> 2193
<211> 125
<212> DNA
<213> Homo sapiens

<400> 2193
gaattcggcc aaagaggcca ttcaaaatat tttcatgttc aaaatttaag ttttacattt 60
ttactactgt taatttaaat aaaatttgtt ctgtggataa aatgaggttg gcagtgagtc 120
tcgag 125

<210> 2194
<211> 135
<212> DNA
<213> Homo sapiens

<400> 2194
gaattcggcc aaagaggcca ttcaaaaata atagaagtat attagttaac aggcaaacta 60
ttgcacataa accaaatctt tgcttaagca aaattttaga tgtattgtaa atgtattaaa 120
tacggaactcc tcgag 135

<210> 2195
<211> 101

<212> DNA
<213> Homo sapiens

<400> 2195
gaattcggcc aaagaggcca ttcaaaaaag gcaaaaaaaa ttaacctgga aaaaacattt 60
ctgctatggt taaatttttt ttgggaatga gaatgctcga g 101

<210> 2196
<211> 126
<212> DNA
<213> Homo sapiens

<400> 2196
gaattcggcc aaagaggcca ttcaaacaaa agaggccatt caaactcaga aggccaaaga 60
ggccattcaa aataaagggt agatttgatg ttttttttta gatttatttt tcttactcca 120
ctcgag 126

<210> 2197
<211> 111
<212> DNA
<213> Homo sapiens

<400> 2197
gaattcggcc aaagaggcca ttcaaacatg ataaggatgg tacttgcata tgggtgaatta 60
ctactgttga cagtttccgc agaaatccta tttcagtgga caccactcga g 111

<210> 2198
<211> 129
<212> DNA
<213> Homo sapiens

<400> 2198
gaattcggcc aaagaggcca ttcaaaaggg gtggtatcta tctagtcgta aatattttac 60
tgtaaccaat ttcccatcaa accaagagcc atgcaatgct ttaaaagcct ttccagcatc 120
attctcgag 129

<210> 2199
<211> 114
<212> DNA
<213> Homo sapiens

<400> 2199
gaattcggcc aaagaggcca ttcaaacatc tcaggttgct gctgcttgct tagtttataa 60
ggtcagatct attaatcagg aatgaaattt tatttgggat tcagtgtctt cgag 114

<210> 2200
<211> 100
<212> DNA
<213> Homo sapiens

<400> 2200
gaattcggcc aaagaggcca ttcaaaagct tggtttatga tctttttgct taaattaatt 60
atacatgatt tctagatttt tggctctcca cactctcgag 100

<210> 2201
<211> 182
<212> DNA
<213> Homo sapiens

<400> 2201

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gaattcggcc aaagaggcca ttcaatttct tcataattat tgccatcact acttcactac 60
ttttcaggag aatgaaaaca gctgttggtc atttactgca ctcttcact tggctgtgtc 120
gtctctgtct tggtagttgc cggtggaacag catggccgtg ccagcctccc actccgctcg 180
ag 182

```

```

<210> 2202
<211> 143
<212> DNA
<213> Homo sapiens

```

```

<400> 2202
gaattcggcc aaagaggcca ttcaaatga ctaagaaaca ttatcgtgtg tttttttgtt 60
tgtttgtttt tttcatcctt tctctttcct ttctgttcaa aaattcagtt ccccatccta 120
gaccagactc ctccatcttc gag 143

```

```

<210> 2203
<211> 140
<212> DNA
<213> Homo sapiens

```

```

<400> 2203
gaattcggcc aaagaggcct ccagaagcac tgcgtatgaa gattattact accaccctcc 60
tcctcgcgatg ccacctccaa ttagaggtcg gggtcgtggt ggggggagag gtggatatgg 120
ctacccccca gatactcgag 140

```

```

<210> 2204
<211> 113
<212> DNA
<213> Homo sapiens

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```

<400> 2204
gaattcggcc aaagaggcca tcatggagca gctgaaggag ttgaagcaga agggagaccg 60
agacaaagag agcttgaaga aggccatccg agcccagaag aagcggcctc gag 113

```

```

<210> 2205
<211> 109
<212> DNA
<213> Homo sapiens

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```

<400> 2205
gaattcggcc aaagaggcca ttcaaatgcc tatcttctcc agtctacaag ttacatgttc 60
ccaccagca ttacagtctt tgaacatggt atttccccac ttactcgag 109

```

```

<210> 2206
<211> 123
<212> DNA
<213> Homo sapiens

```

```

<400> 2206
gaattcggcc aaagaggcca ttcaaatgtg atcatgagat tgcagcaatt cagtacatc 60
ttcaatgctt tacttccagt tctagttctc ttctgtttc cacacctagc caacgtctc 120
gag 123

```

```

<210> 2207
<211> 123
<212> DNA
<213> Homo sapiens

```

```

<400> 2207
gaattcggcc aaagaggcca ttcaagagc aaagaagaca aaaactcaag gaacatctgt 60

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tgagaagaaa aacgcttttt gcatacaagc aggaaaatga gatgttatcc agtactactc 120
gag 123

<210> 2208
<211> 178
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (42)

<400> 2208
gaattcggcc aaagaggcca ttcaaaaata cagtactctt cngtacaaag aaaaaagtca 60
catcacattt aataagatga aaaaagcatt ggcctccatg gtaaccaa atctcagtcc 120
aatactttct attatgcaca ataccctgac ttcaattgaa agtgatccac atctcgag 178

<210> 2209
<211> 102
<212> DNA
<213> Homo sapiens

<400> 2209
gaattcggcc aaagaggcca ttctagtcc atcacccaag ctttctctgt gtacttcaag 60
taaaaagcca tcatgaaaat ctgggttcaca ggcacccctg ag 102

<210> 2210
<211> 129
<212> DNA
<213> Homo sapiens

<400> 2210
gaattcggcc aaagaggcca ttgtttacaa ctccctatat aaatgcaatt cttcattctc 60
aagaccttat ttgtgttggt tccccactgg actcttccca aatgcaaacc aggccagtc 120
gactcgag 129

<210> 2211
<211> 102
<212> DNA
<213> Homo sapiens

<400> 2211
gaattcggcc aaagaggcca ttcaaattgc taattataat atttgtgtcg gtagaaataa 60
ctatagttcc cttcatgaa attcaccccc acgttcctcg ag 102

<210> 2212
<211> 107
<212> DNA
<213> Homo sapiens

<400> 2212
gaattcggcc aaagaggcca ttcaaacatc tcttttagtat tttccgcct aacacttaga 60
tcctgatcat attccaggaa aacatgaaag ttgcgatcat cctcgag 107

<210> 2213
<211> 152
<212> DNA
<213> Homo sapiens

<400> 2213

gaattcggcc aaagaggcca ttcaatatgc tcttcttggg tccatgtccc gacaaccaca 60
 gaggtttccc cactatcctt gtccctcatgg tattgatgta catgtttgcc atagcagaat 120
 tcataattcc accaaccgac accccactcg ag 152

<210> 2214
 <211> 121
 <212> DNA
 <213> Homo sapiens

<400> 2214
 gaattcggcc aaagaggcca tgatgctgga cacactgtca aagtcaatct tctccacaat 60
 gttcttgggt ttaatgctct cttcttgggt gggggctcca cttggcgcat gcgagctcga 120
 g 121

<210> 2215
 <211> 110
 <212> DNA
 <213> Homo sapiens

<400> 2215
 gaattcggcc aaagaggcca ttcgagggtg tcaggactaa gagaagtcac aaaacagcag 60
 atttcccaag agcagcggaa aatgatccag tcacagtcgt cacgctcgag 110

<210> 2216
 <211> 118
 <212> DNA
 <213> Homo sapiens

<400> 2216
 gaattcggcc aaagaggcca ttcagcatga cgcagtggaa aaaaacattt cgagtctata 60
 gacctggacc agtgaagac ctgggttggg attctactct gcacttccgc agctcgag 118

<210> 2217
 <211> 148
 <212> DNA
 <213> Homo sapiens

<400> 2217
 gaattcggcc aaagaggcca ttcaactcag agcatttcac tcaagaatgc atttgctccc 60
 actcgtttc ttgcttccaa gtctgtgat taaaattcca tccaacttga aagattttgt 120
 aaactattcc cacaagacag aactcgag 148

<210> 2218
 <211> 116
 <212> DNA
 <213> Homo sapiens

<400> 2218
 gaattcggcc aaagaggcca ttcaggattg gaatggtttt cttttgtttt tttgttgttg 60
 ttgttgttgt tttgagatgg agtctcgtc tgtcaccag gccggagtgc ctcgag 116

<210> 2219
 <211> 169
 <212> DNA
 <213> Homo sapiens

<400> 2219
 gaattcggcc aaagaggcca ttccggtttg agtctctgga gcctgaactc tcaccatgta 60
 ccagaaaaga atgccccctt ttcgaacttt caaacagtgg ggattatttt tgtttcttat 120
 catcccaatt atttgcctca gtttgctccc attgggtccc ggctcagag 169

<210> 2220
<211> 120
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (16)

<220>
<221> unsure
<222> (112)

<400> 2220
gaattcggcc aaagangcca ttgtaatcat catagcctcc atagcctcca ccataagcac 60
cacgcctcat cctctcaaag ccagctcctc tgccaatgct gttataccct cntcctcgag 120

<210> 2221
<211> 103
<212> DNA
<213> Homo sapiens

<400> 2221
gaattcggcc aaagaggcca ttcaaacagc aaataaagaa aatccatagg tactaagata 60
actgttctct cttcatatga tactaacagg cttatggctc gag 103

<210> 2222
<211> 130
<212> DNA
<213> Homo sapiens

<400> 2222
gaattcggcc aaagaggcca taaattatct tttacttttt ggcaaattgt tacagtttat 60
ggggtctaca atttattttt ttattttctg gcttaagtta tctaggattt gtttctgtgg 120
tactctcgag 130

<210> 2223
<211> 181
<212> DNA
<213> Homo sapiens

<400> 2223
gaattcggcc aaagaggcca ttcttacggt actaaaaatt attgaatata ctcttttcaa 60
attattttaat atgacccaaa attttagaaa tgtgtgttct ctcatactaa tgataatgac 120
ccttaactcta gaaaactgtg ctaaaattat agctattaaa aatcttcctg aagggtcga 180
g 181

<210> 2224
<211> 143
<212> DNA
<213> Homo sapiens

<400> 2224
gaattcggcc aaagaggcca ttccatttag caactgatca ttttgagaac tgataccaag 60
ctgtatgtcc aagatctctt caattgggtc actttgtcca tcagggtcat cagtatcaag 120
tgctgaaagc tctaactctc gag 143

<210> 2225
<211> 152
<212> DNA

<213> Homo sapiens

<400> 2225

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gaattcggcc aaagaggcca ttcaaagata aaatgttcaa attcctcatt tcactatatt 60
actcattttc aggttttctt gaaaatgagt cctgggtcaa ttactcgggg ggcggtcgaa 120
ggccgctgtc ccttcccgtc cccagtctcg ag 152
```

<210> 2226

<211> 135

<212> DNA

<213> Homo sapiens

<400> 2226

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gaattcggcc aaagaggcca ttcaagaatt taaaaaatga tatttaggta ccaagtccag 60
attgtaactc ttggaatttt tctcctggaa gcatttagtt atatttctgt cccctttcaa 120
aatgaacccc tcgag 135
```

<210> 2227

<211> 120

<212> DNA

<213> Homo sapiens

<400> 2227

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gaattcggcc aaagaggcca ttcaaaagac aaactggata cattgagctt accagaaaga 60
aagtgaatca gcttgcatta caattctatg ttaaataatt tatttactat tacactcgag 120
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<210> 2228

<211> 148

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (57)

<220>

<221> unsure

<222> (134)

<400> 2228

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tgccacattg gaagagggtg aaatataagt tctgaaatct ggtacacagg acttgcggt 120
gcagtcaccg aacnggggtt cactcgag 148
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<210> 2229

<211> 161

<212> DNA

<213> Homo sapiens

<400> 2229

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gaattcggcc aaagaggcca ttcaaatcac acatttctac accaatcatc ataagaaaaa 60
agtactctgt agtcgatctg tacatccaaa tgcatttggg aatctacacc tacgttacat 120
tatttaatgt tatatacatc tattaccacac ccacactcga g 161
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<210> 2230

<211> 203

<212> DNA

<213> Homo sapiens

<400> 2230

gaattcggcc aaagaggcca ttcccagggtg acctctgttc attttcatag gggcctctga 60
 agatgctatt ctcaacttta ttgattatta ctattctcag acagggtctt gctctgtcac 120
 ccaggctgga gtgcagtggg gcaatctcgg ctcaactgca cctcacctcc ccggttcaag 180
 gaattctccc actcacctc gag 203

<210> 2231
 <211> 106
 <212> DNA
 <213> Homo sapiens

<400> 2231
 gaattcggcc aaagaggcca ttcaacagag gaagaaatca aatcatcctt tctagaaaca 60
 ttaaaagtgt cctgcagcaa gtctgatgaa gtgtcattgg ctcgag 106

<210> 2232
 <211> 143
 <212> DNA
 <213> Homo sapiens

<400> 2232
 gaattcggcc aaagaggcca ttctcgacac cctctgtaca cagcatgcgc tttatttggc 60
 ttctcttacg cagcgtagt actttcagat ttattcaagc tgctgcgtgc gccaacagtc 120
 cactccttcc tagtgactc gag 143

<210> 2233
 <211> 161
 <212> DNA
 <213> Homo sapiens

<400> 2233
 gaattcggcc aaagaggcca ttcaaccttg ttaaaagaaa ctgggaattc tgtagagtct 60
 gctgactgct ttctgtatta gctatgttgg ttgttgcgtg ggattgtgtg attgtagtgg 120
 tgacactgct tgtgttagta cgccgggttg cactactcga g 161

<210> 2234
 <211> 114
 <212> DNA
 <213> Homo sapiens

<400> 2234
 gaattcggcc aaagaggcca ttcagatatg tttatatcat tactagttaa tggcacaatt 60
 atattgtgtt gcagtgtgtt gatgttaaag tcaaaggctg cagcatgtct cgag 114

<210> 2235
 <211> 150
 <212> DNA
 <213> Homo sapiens

<400> 2235
 gaattcggcc aaagaggcca ttcaaagtat acacaaatat tatagtatta taaaatcagc 60
 agataactgc attaacagga ctttacgttt aggaactaca tccttccatt tgaggattaa 120
 aatatgtatc ttatatacca ctttctcgag 150

<210> 2236
 <211> 158
 <212> DNA
 <213> Homo sapiens

<400> 2236
 gaattcggcc aaagaggcca ttcacaaata ttacagtgtt ataaaaactt cacacacata 60

ctcccaaagt ctataccaga ttcagtcac tttactaaat cattcaaata ataaaagtaa 120
tgaaaacatt attatatttt aaagcaataa gtctcgag 158

<210> 2237
<211> 203
<212> DNA
<213> Homo sapiens

<400> 2237
gaattcggcc aaagaggcca ttcaagaaga cttaaaaaaa atacaatatc caattagaaa 60
agccatattt taaacatttg tacaagaata agctgctgaa acttagtaat tgaaatatga 120
catctgtaca acaatttaca atagagctag aagggaattt atcattatcc tgcatagaac 180
tggtctgcat ttggttcctc gag 203

<210> 2238
<211> 136
<212> DNA
<213> Homo sapiens

<400> 2238
gaattcggcc aaagaggcca tgaagttatc agatgttgca aacacatgct ttttgccttt 60
tcacatgggt atgatctctc gtgtgtgtaa tgtgagggtcc caatgctccc acttctacgc 120
ccaatcacag ctcgag 136

<210> 2239
<211> 142
<212> DNA
<213> Homo sapiens

<400> 2239
gaattcggcc aaagaggcca ttcaggtggc attgatctgg gagaagagca gcatcccttg 60
ggcacaccca ctccaggacg caagcgaaga aggaaggagg gagacagtga ttatgacgat 120
gatgatgacg atgacactcg ag 142

<210> 2240
<211> 178
<212> DNA
<213> Homo sapiens

<400> 2240
gaattcggcc aaagaggcca ttcaaactgg gaaatctgaa ttacacgata ccccagaatt 60
tccaaatgtc gtttttttca tagcagattt tcctttcatg tgagggatat ttctacaaag 120
tgcttttgaa tccaaaaaatt ccaaagcaat ccttttcagcc cctggtggca tcctcgag 178

<210> 2241
<211> 141
<212> DNA
<213> Homo sapiens

<400> 2241
gaattcggcc aaagaggcca tttctttctc taagcagaag ggatagccac cattttctcc 60
cctgactgct gcgtggtggg cacaggacag gcaggcgggg tctgaggagg ctgggtcatt 120
tctgcctaag cgcacctcga g 141

<210> 2242
<211> 130
<212> DNA
<213> Homo sapiens

<400> 2242

gaattcggcc aaagaggcca ttcaaagaga cacagagata cgctgagtga tacagagggt 60
 cagacacact ttcagaatca caacgacact cagagacaca aaaatgcatt tagggatact 120
 gatactcgag 130

<210> 2243
 <211> 132
 <212> DNA
 <213> Homo sapiens

<400> 2243
 gaattcggcc aaagaggcca ttcaaagaag agtcttatat gagatcaaatt ggctgccttt 60
 cccacaaga ttatatTTTT cctgggtatgc tctactttga cacatgtggc tttctcaggt 120
 gagtacctcg ag 132

<210> 2244
 <211> 197
 <212> DNA
 <213> Homo sapiens

<400> 2244
 gaattcggcc aaagaggcca ttcaaactaa tttccaagat tctaaaagtt cttcataatt 60
 tgtcttttctt cccatttcctt cacattgacc tctgcaacct tattccttgc cagccattac 120
 caatgagaat attctctgat ttaccagaa agatcatgat ctttgaacta gctattcgtg 180
 ctacctcatc cctcgag 197

<210> 2245
 <211> 128
 <212> DNA
 <213> Homo sapiens

<400> 2245
 gaattcggcc aaagaggcca ttgtgaaaac tcttaaaata tagaatagca ggagcaaaga 60
 ggctctctag agaggaactg agtgttttta tatgaaattg tggccacatg aaactcagga 120
 tactcgag 128

<210> 2246
 <211> 114
 <212> DNA
 <213> Homo sapiens

<400> 2246
 gaattcggcc aaagaggcca ttcagtgtgt tgacaataat cagtctgttc tagtatctgc 60
 acatacctca gcgggaaaaa cagtatgcgc cgagtatgcc attgcttcct cgag 114

<210> 2247
 <211> 238
 <212> DNA
 <213> Homo sapiens

<400> 2247
 gaattcggcc aaagaggcca ttcaaagata ccaatcaatt tcttactggg gaaatatata 60
 agaacttcca ggagtcacaa gagttccaaa caattaattt ataaaaataa caaacattt 120
 gtctatgaaa aaaagatcag gattcactct catcgacgtc ctcatctgga tgggtgctcag 180
 catcctcctt ttctgctgc tgtttcttcc acagtttggc tatttcagga atctcgag 238

<210> 2248
 <211> 148
 <212> DNA
 <213> Homo sapiens

<400> 2248
gaattcggcc aaagaggcca ttcagttgcc ccggatctgt gtcattcttc tgtagctttt 60
ccactggga acttgatatt tccctgagat aaacagtctg catagctttc ttcaaatgag 120
gttcaatatt tctccacagt tactcgag 148

<210> 2249
<211> 152
<212> DNA
<213> Homo sapiens

<400> 2249
gaattcggcc aaagaggcca ttcaagaata cacactctgc aagttctaag cctgtattta 60
gtctcaaac accgctctgc acactacaaa gattttggta taacgtatca catctagaga 120
aaggcacaat gtatttccca ctatttctcg ag 152

<210> 2250
<211> 190
<212> DNA
<213> Homo sapiens

<400> 2250
gaattcggcc aaagaggcca ttcaaaggga ggtaagtggg attgtaaacc aaagtaaaaa 60
tacaaaaatg ttatgcttgt tatgctatat gctctatttt tctgtctttt tatttttttt 120
tgagacggag tctcactctg ttgcccaggc tggagtgcag tggcgagatc tcggctcacc 180
gaacctcgag 190

<210> 2251
<211> 137
<212> DNA
<213> Homo sapiens

<400> 2251
gaattcggcc aaagaggcca ggttcgtgaa gttcgtaaag aagagcaacg ttatagtggg 60
gaattatctg gcattcgtgc aggagttaaa aagagcatta agcttaaatg aagtttttgc 120
ttagcataac actcgag 137

<210> 2252
<211> 116
<212> DNA
<213> Homo sapiens

<400> 2252
gaattcggcc aaagaggcca ttcagtgtg atccaggaat aaatttcacc ttttttaaca 60
attccttggc tgcagtctta atatccgtga tgtttataaa ccactgcttg ctcgag 116

<210> 2253
<211> 149
<212> DNA
<213> Homo sapiens

<400> 2253
gaattcggcc aaagaggcca tcaaatcaaa agtgaaaagg agtaaaactt ctaaggatgc 60
taataaatct ctgccttctg ctgccttgta tgggattccc gagatcagca gcactggcaa 120
gaggcaggaa gtccgggggc gctctcgag 149

<210> 2254
<211> 101
<212> DNA
<213> Homo sapiens

<400> 2254
gaattcggcc aaagaggcca ttcaaagaga acttgagatt caaaagaaaa ggctggataa 60
attaaaaatct gaggttaatg aatggaaaa taatcctcga g 101

<210> 2255
<211> 103
<212> DNA
<213> Homo sapiens

<400> 2255
gaattcggcc aaagaggcca ttcaatttca tctctgtctc ccccgattgc catccagaat 60
gctttggcca ccttttctgc atgcactttt cttcactctc gag 103

<210> 2256
<211> 172
<212> DNA
<213> Homo sapiens

<400> 2256
gaattcggcc aaagaggcca ttcaaaaggc ttgtgggttt tttaaaaact gttttaaat 60
tcattcttca aaaatgttca gacatgacca cgttgggttc atcacagtgc ttatgaagtt 120
tcttcatttt tcatgtgtcc aagcaggcct gaacaccccc actttcctcg ag 172

<210> 2257
<211> 108
<212> DNA
<213> Homo sapiens

<400> 2257
gaattcggcc aaagaggcca ttcaaacaaa taattaagca aatactttaa tacttacaac 60
tgtgacacaa tagccatgaa gaaaaaggtg ctgttgatga gtctcgag 108

<210> 2258
<211> 102
<212> DNA
<213> Homo sapiens

<400> 2258
gaattcggcc aaagaggcca ttcaaaaaat atgtgggtcaa gaactaaacc aaacaaacct 60
ggatgatcct aggccaaaac aattcctttc caggcactcg ag 102

<210> 2259
<211> 133
<212> DNA
<213> Homo sapiens

<400> 2259
gaattcggcc aaagaggcca ttctttgcaa gtcacccatg ttgttactta ggcattttat 60
cttggtcaa attgttgaag aatgggtggt tgtttcaaga agtgtggcaa gcaccaaccc 120
cataaagctc gag 133

<210> 2260
<211> 179
<212> DNA
<213> Homo sapiens

<400> 2260
gaattcggcc aaagaggcca tttatgttta atgcaactat tgaaatgttt ggcttttagat 60
ctaccattat gttgttttct gtttgttccc tgttttccat tgctgtttct tctttccttt 120
tttccttccc tcctatctct ctttctccct atacacacac acacacacca aggtctcgag 179

<210> 2261
 <211> 109
 <212> DNA
 <213> Homo sapiens

<400> 2261
 gaattcggcc aaagaggcca ttcataatac taaaaagtta aagattacct aaatctgtaa 60
 cagtagaaaa ttatctaaat aaattatgaa atatacatcc atcctcgag 109

<210> 2262
 <211> 105
 <212> DNA
 <213> Homo sapiens

<400> 2262
 gaattcggcc aaagaggcca ttcaaagtca tctaaccaaa taccttcccc cacagctaag 60
 aaagaatccc agtgtttccc tagtttagag atgaagatac tcgag 105

<210> 2263
 <211> 231
 <212> DNA
 <213> Homo sapiens

<400> 2263
 gaattcggcc aaagaggcca caaatagtgt aacaaatcca aattgagtaa ctgtttctaa 60
 gtactcatag aaaagcccaa ggggtccaaa actttcaagg tcatgatcct gctcccatcg 120
 actatacagc ttctcagagt ttgtccgagc ttttcggcgt ctccaccaat tcaaagccaa 180
 gggataaatg gcttctttaa tgtttccaaa aatctgtttc ccggtctcga g 231

<210> 2264
 <211> 120
 <212> DNA
 <213> Homo sapiens

<400> 2264
 gaattcggcc aaagaggcca ttcaaagaga attggtagag ggggttgatt ttttgagggt 60
 catataaac aaaataaaga agagatgctc ttgctgcaa tggctctgtaa cattctcgag 120

<210> 2265
 <211> 233
 <212> DNA
 <213> Homo sapiens

<400> 2265
 gaattcggcc aaagaggcca tacagctctg ttcccatgaa cttcttccgc tcccatttgc 60
 cgctcttcat cgaagcgcgc gcctggggaa tctgcctggc caggcacatg atcattccac 120
 aagtgagttc tgcggcactg aggctgttcc cattgggggt gttcataacc aagatgccct 180
 tccttggtgc ggcctccaga tccacattgt ccacacctgt gccagccctc gag 233

<210> 2266
 <211> 151
 <212> DNA
 <213> Homo sapiens

<400> 2266
 gaattcggcc aaagaggcca ttcaaagata ggcttggtgg gacaaaacta atatgcatac 60
 racatacata tatttcttgt cttctttact gtcaatcttt cagaacagta acatgacatt 120
 acaaacacct caaattccca cttctctcga g 151

<210> 2267

<211> 117
<212> DNA
<213> Homo sapiens

<400> 2267
gaattcggcc aaagaggcca tttagactat ctctttgcta atttttgctt actgctgtag 60
ggaagaagat ttccaatgaa ctttaaataat ctcattcatg tctaccattg tctcgag 117

<210> 2268
<211> 132
<212> DNA
<213> Homo sapiens

<400> 2268
gaattcggcc aaagaggcca aaggctaaga ctgtctaagt ccagatattc gaaagcaagc 60
taattattat tgaaactcta agatattatt aagaaggaca atcaagaaat gaaagctgta 120
cttggtctcg ag 132

<210> 2269
<211> 101
<212> DNA
<213> Homo sapiens

<400> 2269
gaattcggcc aaagaggcca ttcaaatagt tcgtacaact acagatacca gttctcatag 60
cttggcatat tcaaccatat atgaaaacgc atttcctcga g 101

<210> 2270
<211> 106
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (86)

<220>
<221> unsure
<222> (88)

<400> 2270
gaattcggcc aaagaggcca ttcacgatcc agaattttct gtttaaaaat ctttcgaagt 60
atgttatatc acttattttc atcagnanaa cgtcatggct ctcgag 106

<210> 2271
<211> 148
<212> DNA
<213> Homo sapiens

<400> 2271
gaattcggcc aaagaggcca ttttctgttt catcatcacc agatccttct tctccctttg 60
gatgtcttct cctctttttc ttctttctct caccaccctc ctcattcttca ccttcttgtt 120
cactgccact accctatctt ctctcgag 148

<210> 2272
<211> 115
<212> DNA
<213> Homo sapiens

<400> 2272

gaattcggcc aaagaggcca tgacttcatt ttcaaatatt tctggggctg tttgtatctt 60
gttcctttgt gaagtgtgtt gcagaaccga cgcttactgt gcaagagatc tcgag 115

<210> 2273
<211> 107
<212> DNA
<213> Homo sapiens

<400> 2273
gaattcggcc aaagaggcca ttcaaatctt atcaaatgaa actgttgcca ctcttaaatt 60
acacaaccgc tgtatttcag tgttccactg actcacaatc actcgag 107

<210> 2274
<211> 108
<212> DNA
<213> Homo sapiens

<400> 2274
gaattcggcc aaagaggcca ttcaattttt catcttcctg ctcaatatta gccatttttt 60
cactagtcaa tattcctgat gcttttttca actgttcatt ttctcgag 108

<210> 2275
<211> 144
<212> DNA
<213> Homo sapiens

<400> 2275
gaattcggcc aaagaggcca ttcattacct tcgctcatga tcccagcagc catctttctt 60
aacaccttct gccactttct gtcggtgcta atggatggaa ctctgcaca agttttaact 120
gaacaagaaa cccaaggct cgag 144

<210> 2276
<211> 113
<212> DNA
<213> Homo sapiens

<400> 2276
gaattcggcc aaagaggcca ttcaacttcc atagtacatt ttacagttag caattcatat 60
aacagtatac aacagttagt atcttgagaa aaataaaaag ctgcatgctc gag 113

<210> 2277
<211> 176
<212> DNA
<213> Homo sapiens

<400> 2277
gaattcggcc aaagaggcca ttccatagct tgcctttttg ctctcagtta tttcctttga 60
tgcacaattt ttttacattt gatatagaca catttgctg tttttggtt ttttatgtat 120
gctttggatg tcatacccaa gaaatctttg ccaaattccag tgtccagaat ctcgag 176

<210> 2278
<211> 140
<212> DNA
<213> Homo sapiens

<400> 2278
gaattcggcc aaagaggcca ttcataagaa agtgttatat ctagggtttt aaaactgaag 60
ttgaaattat ctttgtttag agtagtagta tagaataaaa gatccgtatg ctggttcgta 120
gattgatacg tgcctctgag 140

<210> 2279
 <211> 128
 <212> DNA
 <213> Homo sapiens

<400> 2279
 gaattcggcc aaagaggcca ttgatgtgtt tgtggaagct actcatgttg cccttgcat 60
 ggggagcctg gttagaactc tgtaacctga tcacagacaa agagatggta aattgtgatg 120
 agctcgag 128

<210> 2280
 <211> 114
 <212> DNA
 <213> Homo sapiens

<400> 2280
 gaattcggcc aaagaggcca ttcaaactgc tgctgttcaa aacgtgaaat gattctgctg 60
 aatccattct tgatgtctct ctttagtggt cttctcatta gtggtcattc cgag 114

<210> 2281
 <211> 110
 <212> DNA
 <213> Homo sapiens

<400> 2281
 gaattcggcc aaagaggcca ttctcttccc ctgtgtgcct cagtgtcctt ctcatctcag 60
 tagggacttc tgaaatgggg gaggcagtgt ggaatactgt gaatctcgag 110

<210> 2282
 <211> 136
 <212> DNA
 <213> Homo sapiens

<400> 2282
 gaattcggcc aaagaggcca ttcaaaggga aacaaatcct agtaatcctc ttgttcttaa 60
 acaaaaattc ataattattt atacatttta aaatattata ttgtttcaaa tggtgttagt 120
 ggggcataatc ctcgag 136

<210> 2283
 <211> 104
 <212> DNA
 <213> Homo sapiens

<400> 2283
 gaattcggcc aaagaggcca ttcaaacaag aaattatgcc aatcaactgt caaattttca 60
 ctataatttt cctaaaaagg cgtttttccc ccaataatct cgag 104

<210> 2284
 <211> 170
 <212> DNA
 <213> Homo sapiens

<400> 2284
 gaattcggcc aaagaggcca ttcaaactct aacacaaaat gatcacaggc tggcagagac 60
 acagaagcag gcaacaattt atctgggggc taatcagagt catcataact ctcatcacta 120
 tcttgcctct tttctccagc acttacttcg tcttcttcac catcctcgag 170

<210> 2285
 <211> 116
 <212> DNA

<213> Homo sapiens

<400> 2285

gaattcggcc aaagaggcca ttcaaaagct tctcagcacc atcccacttt tcctgtttgt 60
ttattactct tcaacagcag tttcacctca tgctttttaa tttgtcatc ctcgag 116

<210> 2286

<211> 125

<212> DNA

<213> Homo sapiens

<400> 2286

gaattcggcc aaagaggcca ttcagtctcc ttatcatgat tttggacccc gatctctttt 60
tcctcttgtt ctttgaggct gtgggtatct tgggaggctc ctctcttct tccacaatac 120
tcgag 125

<210> 2287

<211> 194

<212> DNA

<213> Homo sapiens

<400> 2287

gaattcggcc aaagaggcca ttctgtatat cctgaacaaa gccatcttta tcatagccat 60
tagtgacaat gacttccaaa ttcttatggt ctgctgactt cttcatcatt ttcttatcat 120
tatcactttg ttctgtctct ttcacttctt cttgggcctc ttcttctca gactcggtc 180
cactgtcact cgag 194

<210> 2288

<211> 126

<212> DNA

<213> Homo sapiens

<400> 2288

gaattcggcc aaagaggcca ttcaaaagagc tattcaatgt cagttacaag cctgtcccaa 60
ttatatccct actactcacc atcccgcac ctatcactgg cattttctgt ccatatctta 120
ctcgag 126

<210> 2289

<211> 116

<212> DNA

<213> Homo sapiens

<400> 2289

gaattcggcc aaagaggcca ttctccacac tttaaatttg acttgacatt ttctaggcag 60
atataagtta ttagagaatg agattctcta taaaaatgat cccttcattt ctcgag 116

<210> 2290

<211> 312

<212> DNA

<213> Homo sapiens

<400> 2290

gaattcggcc aaagaggcca ttcaaaagctt ctcaagtcag ctaagtcaga cagaactgca 60
gagatagaag tagaaggga ctcagattct tcctcagcta gggtagaatc caggaacctc 120
gagtaatagc cattctgact ggtgttaggt ggtatctcgt tgtggttttg atttatttgc 180
atttctctaa tgatcagtga tattgagggt tttttaatag gcttggtggc tgtatgtata 240
tcgtcttttg aaaagtgtct ggctggggcg gtggctcagg cctgtaatcc cagcactttg 300
gataggctcg ag 312

<210> 2291

<211> 148
 <212> DNA
 <213> Homo sapiens

<400> 2291
 gaattcggcc aaagaggcca ttcaaatgat gttatttctt ggttgcaacc agttgtttca 60
 attttcttta ttgatccat acattttatt tcttcttggtg ttccattttg ttgtagtagt 120
 gtctcttcgg gattcggctg gcctcgag 148

<210> 2292
 <211> 128
 <212> DNA
 <213> Homo sapiens

<400> 2292
 gaattcggcc aaagaggcca ttcattgcaga cttttttaac gattttgaag atctttttga 60
 tgatgatgac atccagttag atgcctctg gctgcaggcg gggccaagcc cttggcacag 120
 agctcgag 128

<210> 2293
 <211> 100
 <212> DNA
 <213> Homo sapiens

<400> 2293
 gaattcggcc aaagaggcca ttattcttcc aattacttta ggaaatttat tatcttttga 60
 atatcagaac caaatgttac taactatccc aatcctcgag 100

<210> 2294
 <211> 183
 <212> DNA
 <213> Homo sapiens

<400> 2294
 gaattcggcc aaagaggcct agggacctag cgcagggtt ttggtaatcc ataaaatgga 60
 ttctgagact gcgacggcaa ggctgtcctg tccccaggc acccaaggat cctgccagac 120
 agcacacttt ggaggaaggt ctgcaggag cagctgagcc atttggttct gaacgcactc 180
 gag 183

<210> 2295
 <211> 133
 <212> DNA
 <213> Homo sapiens

<400> 2295
 gaattcggcc aaagaggcct agtgtatatt aggtgtctg aaattgtgca acatgttact 60
 gatgctttat ttttttcta tctccttttc tctctgtagt ccatactgga tagttcctgt 120
 tgccggtctc gag 133

<210> 2296
 <211> 102
 <212> DNA
 <213> Homo sapiens

<400> 2296
 gaattcggcc aaagaggcct agtggatat tgcaggaact gtgtgctaaa attgaacaat 60
 ttttttgaga ttatgggtgc aatacttggc gtgctactcg ag 102

<210> 2297
 <211> 133

<212> DNA

<213> Homo sapiens

<400> 2297

gaattcggcc aaagaggcct agatcagata ggtaaacctgc aagatagata ggatgaaact 60
tttggcctac tgtattactt acagagcttt tttgtgtgtg gtttttaaaa ctgttaaggc 120
aagaagactc gag 133

<210> 2298

<211> 147

<212> DNA

<213> Homo sapiens

<400> 2298

gaattcggcc aaagaggcct agttgtcagt tgtctcttcg ttttgtaag gtttttaata 60
agtacgtttg gcataatgtc ttttaatggg tttgtaatat ttgtaacggc ttagcagcc 120
tataactttt cagctggtgc cctcgag 147

<210> 2299

<211> 109

<212> DNA

<213> Homo sapiens

<400> 2299

gaattcggcc aaagaggcct acgattgaat tctagacctg cctcgagtgt gtggcaggtc 60
tagaattcaa tcggccaaag aggcctatga attctagacc tgcctcgag 109

<210> 2300

<211> 171

<212> DNA

<213> Homo sapiens

<400> 2300

gaattcggcc aaagaggcct agcgacgttg acttcgaaat tgtactccct gctgttcgcg 60
aggacctcca ccttcgccct caccatcatc gtgggcgtca tgttcttcga gcgcgccttc 120
gatcaaggcg cggacgctat ctacgaccac atcaacgagg agaaactcga g 171

<210> 2301

<211> 131

<212> DNA

<213> Homo sapiens

<400> 2301

gaattcggcc aaagaggcct aggaggtttg aaagaaggta gtgggctcag aaacattaaa 60
agttaggcac aaaggacaag gaaaaataaa cgaaaaataaa tataatgaga atatatccaa 120
caatcctcga g 131

<210> 2302

<211> 125

<212> DNA

<213> Homo sapiens

<400> 2302

gaattcggcc aaagaggcct aattgaattc tgcttgtcat taagataagg tgaataagtg 60
tcttaaactg cctgtaaaac cggactcccc tttgttacat gcacattttc cattgttacc 120
tcgag 125

<210> 2303

<211> 137

<212> DNA

<213> Homo sapiens

<400> 2303

gaattcggcc aaagaggcct aaaaagaata tgtggaactg ttcactgagt gtaataattt 60
 ttttatcctg tattattcaa caggctacag ttcttagcag gagagagagc gaggagtgtg 120
 caggaaatgc tctcgag 137

<210> 2304

<211> 136

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (77)

<400> 2304

gaattcggcc aaagaggcct aatgaatgta taaagcgctt ttgttccaaa gatctaaaga 60
 ctccacaca cactcantga tgaaattcct attttactgt ttcctttgct gtgttattgt 120
 agatgccaga ctcgag 136

<210> 2305

<211> 138

<212> DNA

<213> Homo sapiens

<400> 2305

gaattcggcc aaagaggcct attgatagtg tggaccccca tggcttcac tectaccgcc 60
 tattccggga cgccacaaga tacatggatg gacaccatgt aaaggatatt tcatgtctga 120
 atcgggaccc agctcgag 138

<210> 2306

<211> 194

<212> DNA

<213> Homo sapiens

<400> 2306

gaattcggcc aaagaggcct aggtgtgaca gatcaattgt caataaatca aggcagactg 60
 cactggatat tgctgtattt tgggggtata agcatatagc taatttacta gctactgcta 120
 aaggtgggaa gaagccttgg ttcctaacga atgaagtgga agaattgtgaa aattatttta 180
 gcaaaacact cgag 194

<210> 2307

<211> 133

<212> DNA

<213> Homo sapiens

<400> 2307

gaattcggcc aaagaggcct aaaaacttca agacattcaa aaactaggaa ggagtatgtt 60
 taatagtatt tgtataaatt tgggtggttat gtttttttat tttgtttctg ttttgtgtag 120
 aggtgatctc gag 133

<210> 2308

<211> 101

<212> DNA

<213> Homo sapiens

<400> 2308

gaattcggcc aaagaggcct actcagcttc tcccatagggt agtttaacag gcattaaaat 60
 ttgtaattga aatgttgctt tctctgaaaa agtgtctcga g 101

<210> 2309

<211> 103

<212> DNA

<213> Homo sapiens

<400> 2309

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gaattcggcc aaagaggcct actttttatt ttgtacttaa aattctggta ctgacacttc 60
acaggctaag tataaaatga agttttgtgt gcacctcttc gag                      103

```

<210> 2310

<211> 161

<212> DNA

<213> Homo sapiens

<400> 2310

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gaattcggcc aaagaggcct acagatagga atctaaatat ttatagttag attgtgaaag 60
caaccttaaa gttttgaaga agactgatga gactagggtgc tttgcttcct ttcacagggt 120
atctttctgt ggcatattgag aacagaaacc aagaactcga g                      161

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<210> 2311

<211> 101

<212> DNA

<213> Homo sapiens

<400> 2311

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gaattcggcc aaagaggcct agattggaaa tctgtagcaa gatgctgttt aaaattacca 60
tattgttttt ttatcttata cttagctctc tggcactcga g                      101

```

<210> 2312

<211> 150

<212> DNA

<213> Homo sapiens

<400> 2312

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gaattcggcc aaagaggcct agtgctgaat gatatgtttg gggtaaatca gtttttttct 60
tatagaattt cggcggtttt gctgcaactg ccactaattt tgcattttaa agaacaaaag 120
aggaatgtat ttttcgaagg agctctcgag                      150

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<210> 2313

<211> 149

<212> DNA

<213> Homo sapiens

<400> 2313

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gaattcggcc aaagaggcct aagactttct gtcgtgggtc ttagtgtgtt gtcatatcat 60
tgtccaagaa atatctaatt ttaattgttg ttattaatac tagctgggac attatgttgt 120
atattttatt aatttgcag ggactcgag                      149

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<210> 2314

<211> 153

<212> DNA

<213> Homo sapiens

<400> 2314

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gaattcggcc aaagaggcct acttaagcat tactttttta actttgtgcc atttggtctt 60
tactttttat ggatgttttc aaagaaacta ttttatattc aatctagttt atttagtcta 120
ctgtatttct atttcgtgga agcgggactc gag                      153

```

<210> 2315

<211> 125

<212> DNA
<213> Homo sapiens

<400> 2315
gaattcggcc aaagaggcct agtaacaacc agatggcttc actgaaacct gcttttgtaa 60
attacttttt tttactgttg ctggaagtgt cccacctgct gtcataata aatgcagaac 120
tcgag 125

<210> 2316
<211> 106
<212> DNA
<213> Homo sapiens

<400> 2316
gaattcggcc aaagaggcct aagaaaataa acctaaattg tgctgtaatt aagattatta 60
aaattagaat tatacaatga cttatttttg gtggcaaatt ctcgag 106

<210> 2317
<211> 114
<212> DNA
<213> Homo sapiens

<400> 2317
gaattcggcc aaagaggcct aaacagttgt gaagaacaag taatgaaggt gggagggatt 60
gtgttttttg ttttggggac aggggtctcac tgtgtcacc aggctgatct cgag 114

<210> 2318
<211> 107
<212> DNA
<213> Homo sapiens

<400> 2318
gaattcggcc aaagaggcct aaaacaactt acgttttcac aagccttaaa atttgaccaa 60
ataaactttt tttctgcttc atgcattttt cccagcatct tctcgag 107

<210> 2319
<211> 102
<212> DNA
<213> Homo sapiens

<400> 2319
gaattcggcc aaagaggcct aacctgaagt aacctgatgt taaccaatct gctgtgtcta 60
ctatgctggt tccttggtcc tgctagtgt gctttactcg ag 102

<210> 2320
<211> 102
<212> DNA
<213> Homo sapiens

<400> 2320
gaattcggcc aaagaggcct aaggataagt actagaaata ttcatttttt tccttcacaa 60
atctaaatgt tgcttatgaa aactcatctt agaatactcg ag 102

<210> 2321
<211> 100
<212> DNA
<213> Homo sapiens

<400> 2321
gaattcggcc aaagaggcct agcggaacag tcattatata ttatttagac tcattccttc 60

ttccagtgcc cttatgatta ttttgcattg cataactcgag 100

<210> 2322

<211> 102

<212> DNA

<213> Homo sapiens

<400> 2322

gaattcggcc aaagaggcct aggttttctg gactttttatc tcattctctgt atctgatctt 60
attctcctaa tgaaactggt ggtttcgaga gcccttctcg ag 102

<210> 2323

<211> 158

<212> DNA

<213> Homo sapiens

<400> 2323

gaattcggcc aaagaggcct atctgttttt tgaaatcctc ttttttacat tgtttaaaga 60
taatgccttg gctaaaaagc ctgcttcact ttccctctgt tttagtgtt ttctccacat 120
tggcagtaaa gagccttggc gtcccaggac aactcgag 158

<210> 2324

<211> 151

<212> DNA

<213> Homo sapiens

<400> 2324

gaattcggcc aaagaggcct agttaatttt tctaatttta ccaaagtttg cagcctatac 60
ctcaataaaa cagggatatt ttaaatacaca tacctgcaga caaactggag caatgttatt 120
tttaaagggc atactggagg ttctccctat a 151

<210> 2325

<211> 127

<212> DNA

<213> Homo sapiens

<400> 2325

gaattcggcc aaagaggcct atattactgg tattagtctt agcctaatac acctaattat 60
ttttctttct gtattctttg ctccctcaaa tagcatctgc agcaattgga atgagaaatc 120
cctcgag 127

<210> 2326

<211> 196

<212> DNA

<213> Homo sapiens

<400> 2326

gaattcggcc aaagaggcct acaacactgt gaggtttctg taatatttag cttttatttg 60
gaagcgatag cgtatggcat tttttatgct gtttggttta tattgtctac tgcaggcttc 120
tttgtataag ctttgcttgg gctcaccctc tcctggacac tgttttaaag tgtcaccgct 180
gtccatgcga ctcgag 196

<210> 2327

<211> 109

<212> DNA

<213> Homo sapiens

<400> 2327

gaattcggcc aaagaggcct cggaaggcag gcacacgaag acacagggtat gtcgggaagt 60
gcacacaaa cgttgtcttt ccttttttgg taaagaagaa aaactcgag 109

<210> 2328
<211> 126
<212> DNA
<213> Homo sapiens

<400> 2328
gaattcggcc aaagaggcct aatgtttatg tcactaactc atctgaaagt acttgtctta 60
aaagttttta tttttattcc agtgtttggt gattttttcc aaaaacctaa gaaaacccaa 120
ctcgag 126

<210> 2329
<211> 265
<212> DNA
<213> Homo sapiens

<400> 2329
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ctggaacagc cacaaccac caaggattgc cagctgtgga ttcagagata ctggagatgc 120
cacctgaaaa agcagatgga gtagtggagg ggatagatgt aaatggacca aaagcacagc 180
tgatgttgcc gtatccagat ggaaaaaggg aacagatcac tcttcagag caagctaaac 240
tgctagcttt ggagaagcac tcgag 265

<210> 2330
<211> 164
<212> DNA
<213> Homo sapiens

<400> 2330
gaattcggcc aaagaggcct actaataagc caaggaatcg acatatatta ggtgcgtgta 60
ctgtttctaa aaaccacaaa ctaagaatga taaattatca atatagttta gtatttgcta 120
atcttactac actcttttgt tatgtatatg taggaagtct cgag 164

<210> 2331
<211> 129
<212> DNA
<213> Homo sapiens

<400> 2331
gaattcggcc aaagaggcct aaaaaaacia aaaaaaaaca gaaaaaaaag aaagaaataa 60
taggaaaaaa taataatttc tcctaatatg attatttatt atagaatttt atgtctccat 120
gtactcgag 129

<210> 2332
<211> 104
<212> DNA
<213> Homo sapiens

<400> 2332
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tattgaagat gatgatgatg attatgatga agaaagctct cgag 104

<210> 2333
<211> 170
<212> DNA
<213> Homo sapiens

<400> 2333
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ctcccagttt ataaatggtt ctcttgggag cctttggaag ctgtattaaa tcttccagtc 120
ttttatttct aattttttct cttaattctaa atagggccca gtgtctcgag 170

<210> 2334
 <211> 102
 <212> DNA
 <213> Homo sapiens

<400> 2334
 gaattcggcc aaagaggcct agctgttatt gtgatgagtc tttggtttta catcacagta 60
 ttctgtgatg tctttttaac tttttgaaa gaggaactcg ag 102

<210> 2335
 <211> 125
 <212> DNA
 <213> Homo sapiens

<400> 2335
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 gcttaaaaaat tttgattgtt aatgccctat tttctaattt ggcacctctt gatgccgaac 120
 tcgag 125

<210> 2336
 <211> 416
 <212> DNA
 <213> Homo sapiens

<400> 2336
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 ttgtgaaacgt gtttcaagat aggcctcttt ggccgaattc ggccaaagag gcctactctt 120
 tactcacct cactcagcct aaccttgctt ccgattttat taaggaaatc caatcaatca 180
 gaagagggtt ctacaattta ctatcacatt taccaccag ccacacctc tgccatata 240
 gctcctctcc tattccaatg gctggaatgt ctcaggggaag accaagccct tcacttgta 300
 attagatccc agctctctgt cccatccatt atggaagctg cacatcacc cagtcacaca 360
 agagggcact ctgaatgagg aatcttgtaa actactcaa atcaccgctt ctcgag 416

<210> 2337
 <211> 112
 <212> DNA
 <213> Homo sapiens

<400> 2337
 gaattcggcc aaagaggcct aaatgagcat gataatttta caaaaaatct tgaaaatctc 60
 atgtctacca ttcaagagag ttactgttcc aactggcgat gcccaactcg ag 112

<210> 2338
 <211> 127
 <212> DNA
 <213> Homo sapiens

<400> 2338
 gaattcggcc aaagaggcct aaaagacaat gaagccttta ttgagccact acattaaaag 60
 tatatatattg tttactgcct tcaataccag tattacatca atgcatgtat cagaaacttc 120
 actcgag 127

<210> 2339
 <211> 187
 <212> DNA
 <213> Homo sapiens

<400> 2339
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 ggtaagaaat tgggcattgc ttggctcttt aaacacatca gtgcttcac attcacctat 120

gtatttatta ttcaaaagtg tcattttaat atttattgct accttctgtg aatgctcagc 180
tctcgag 187

<210> 2340
<211> 191
<212> DNA
<213> Homo sapiens

<400> 2340
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cttttcgcaa gaacaagact ctcggctatg gagtccccat gttgttgctg attgttgagg 120
gttcttttgg tcttcgtgag ttttctcaaa tccgatatga tgctgtgaag agtaaaatgg 180
ataactctcga g 191

<210> 2341
<211> 111
<212> DNA
<213> Homo sapiens

<400> 2341
gaattcggcc aaagaggcct aatgaaattt acagtgarag aacaaaagag gattagtaga 60
aaatacatta ttagaatata aaaaatgtta ttactgagga aatatctcga g 111

<210> 2342
<211> 103
<212> DNA
<213> Homo sapiens

<400> 2342
gaattcggcc aaagaggcct agtaaaacat tggctcaaaa taaagtacac actgatttat 60
tttactgttt gaaatgtttc cttttaaaact gatgctcctc gag 103

<210> 2343
<211> 162
<212> DNA
<213> Homo sapiens

<400> 2343
gaattcggcc aaagaggcct ataaatcatg aacataaaaa taattttcaa agtatgctta 60
attgttcggt tttttaattc agcagaattt ttctcctctg ctaatgacaa ggcagtctat 120
attagagact gtcaaaatta tttcttaaga agcaccctcg ag 162

<210> 2344
<211> 169
<212> DNA
<213> Homo sapiens

<400> 2344
gaattcggcc aaagaggcct agaggaaccc aaagatgaag atttcagccc tgacgggggt 60
tatattccac gaatcctttt tctggatccc agtggcaagg tgcacccctga aatcatcaat 120
gagaatggaa accccagcta caagtatttt tatgtcagtg cccctcgag 169

<210> 2345
<211> 131
<212> DNA
<213> Homo sapiens

<400> 2345
gaattcggcc aagaggccta gaaaagaatc aaagattttt tgtgctcttc actatgtata 60
tagctctgtc ttcagtccat gctctgatcc tttgtggatt tcagttcctc tctgtgtcc 120

gagcactcga g

131

<210> 2346

<211> 275

<212> DNA

<213> Homo sapiens

<400> 2346

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gaattcggcc aaagaggcct aaaagaggcc tataggcctc ttgggccgaa ttcggccaaa 60
gaggcctatt tgtttttgtg aatgaagaat gaaaatttta ttcccattaa gtgcgagctt 120
caattgaggg actcagttta tgaggtctta ctgatgtttc ctctcttagg tgctgtagtt 180
aaaatcttgc tgggtctaaaa tgggtgaaaac tattgaggta ttcaaatgat aagtacttta 240
taaactgaaa ttgcattgaa aacggagtac tcgag                                275

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<210> 2347

<211> 119

<212> DNA

<213> Homo sapiens

<400> 2347

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gaattcggcc aaagaggcct attttttattc ttttttcttt ttttttgctt aagctatata 60
aaaaggtgag gaagcagttt tgttacctaa tgaaaattat tacactcata atactcgag 119

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<210> 2348

<211> 181

<212> DNA

<213> Homo sapiens

<400> 2348

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gaattcggcc aaagaggcct aaatggacac aaatatttct tggattatgt gtctgcgcat 60
attttatttt tgctgcacaa cactcgagat aggtgggtggg ggaaacaaaa cacacagtct 120
ctggcaagcc ccaccgggaa aggagggctc agaaggcgta gcgggtccgg ataccctcga 180
g                                181

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<210> 2349

<211> 106

<212> DNA

<213> Homo sapiens

<400> 2349

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gaattcggcc aaagaggcct acaggcatat tttttattac tgcccagtaa acatatatac 60
taaagggttta atgaagctgt gcccttacta tatgcactca ctcgag                                106

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<210> 2350

<211> 233

<212> DNA

<213> Homo sapiens

<400> 2350

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gaattcggcc aaagaggcct actaaaaaaa aactttcctt cacacaaaact tgacttctct 60
tagaaggctt atttctttct tgagcatata ttttaggact atttacattt attatcttct 120
cttccatgtc ctcaagtgtc agtacttcac tttctggagt taattcagcc cagttttcac 180
ctatagcatg tttattaacc attttcatac acttaaaagc ccagcagctc gag                                233

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<210> 2351

<211> 114

<212> DNA

<213> Homo sapiens

<400> 2351

gaattcggcc aaagaggcct attcaaagct aaaatataaa actatttggg aagtatgaaa 60
cgatgtctcg tgatctggtg tacccttata cctgtgacgt ttggccatct cgag 114

<210> 2352
<211> 168
<212> DNA
<213> Homo sapiens

<400> 2352
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tattttatgt taatcttgtc aatgagaggg accagttggt gttgcccaat cagcactcca 120
aggctgtgtg tgcaccagcc agagagcgca cgttggcacg tactcgag 168

<210> 2353
<211> 134
<212> DNA
<213> Homo sapiens

<400> 2353
gaattcggcc aaagaggcct actaaagtat taaaagtaca gaggaaaaac taagcaagca 60
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tgcaaccact cgag 134

<210> 2354
<211> 163
<212> DNA
<213> Homo sapiens

<400> 2354
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tatttaactg tactgttcag tagtgtttag tcattcgcat tgttgtcaat taatatccag 120
aagttttttc aacttaatga aactaaaaca ttataccctc gag 163

<210> 2355
<211> 117
<212> DNA
<213> Homo sapiens

<400> 2355
gaattcggcc aaagaggcct agataaattg gcctacataa aaataagaaa tcttacattc 60
agacttgggg ctttcactta tcataagatg aaaactaatt ttcattgttt cctcgag 117

<210> 2356
<211> 224
<212> DNA
<213> Homo sapiens

<400> 2356
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gtagtaagt gaaatattca aggctctcca gcacagacga tggctacatt gaccttcagt 120
ttaagaaaac cctccaaag atcccttata aggccatcgc gcttgccact gtgctgtttt 180
tgattggcgc ctttctcatt attataggcc cccaccact cgag 224

<210> 2357
<211> 105
<212> DNA
<213> Homo sapiens

<400> 2357
gaattcggcc aaagaggcct acttgaaatg aggattttat ctctgagtat tttttgtagt 60

attcccccttg tccagttttt gcagaagaat ggctcaagcc tcgag 105

<210> 2358

<211> 129

<212> DNA

<213> Homo sapiens

<400> 2358

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tttcagtatt tggctgttat agatatgctt gtgtacaaat gttttggaaa actgatgaca 120

gatctcgag 129

<210> 2359

<211> 102

<212> DNA

<213> Homo sapiens

<400> 2359

gaattcggcc aaagaggcct aggtgaactg gttaaataaa tcatactaga ttcagaaaat 60

acatactaca aaaacagaat gaaatggatg acctgcctcg ag 102

<210> 2360

<211> 129

<212> DNA

<213> Homo sapiens

<400> 2360

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agcttcttgt ctctgttttg gattactgga ataccatgg gccctctcaa gagtgctgga 120

caactcgag 129

<210> 2361

<211> 145

<212> DNA

<213> Homo sapiens

<400> 2361

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taaattatag tattaccatt atttgatttg ttattgcaca ttctgtgcca tgaagctttt 120

taacatttgc aacagaaccc tcgag 145

<210> 2362

<211> 135

<212> DNA

<213> Homo sapiens

<400> 2362

gaattcggcc aaagaggcct actgttcaac ttgaaaatga gctggagaat tttactaagc 60

agtttctacc ttcaagcaat gaagaatcct aacaatagag attgcttttg tgaccatgat 120

aggaggtcac tcgag 135

<210> 2363

<211> 136

<212> DNA

<213> Homo sapiens

<400> 2363

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ctgcatgttg ctggaggttt gtggaacggg ggtctacggg gtgaaatata cacagagctc 120

tttagcctgc ctcgag 136

<210> 2364
<211> 116
<212> DNA
<213> Homo sapiens

<400> 2364
gaattcggcc aaagaggcct agaaagaata cttaaaaagt taaatattcc ttaatttcaa 60
gtttatgaac acaatacat taaactagaa tgcatttttag aaataaacta ctcgag 116

<210> 2365
<211> 155
<212> DNA
<213> Homo sapiens

<400> 2365
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tgaagaaact attatttcag atgtgcatac acctgagcga actatggact agacaggctc 120
tcttggtcac attaccttat caagagtctc tcgag 155

<210> 2366
<211> 100
<212> DNA
<213> Homo sapiens

<400> 2366
gaattcggcc aaagaggcct aatttagata gttgtttagt tctctttttc tttgtagaac 60
atagatataa ggcattggtt cattgaagtc agtactcgag 100

<210> 2367
<211> 108
<212> DNA
<213> Homo sapiens

<400> 2367
gaattcggcc aaagaggcct agctatgata tcaattgact tcctgggggtt attcttcttt 60
atggcaggaa gatgtatttg tacaccagac tgccataaag gcctcgag 108

<210> 2368
<211> 131
<212> DNA
<213> Homo sapiens

<400> 2368
gaattcggcc aaagaggcct aatttcctt taaaataact atttatttta aaataactat 60
tggcaataag gaaactgttc aaagtagagg cagatcttga tagaaagatg ttaatcacag 120
gctttctcga g 131

<210> 2369
<211> 169
<212> DNA
<213> Homo sapiens

<400> 2369
gaattcggcc aaagaggcct agattgattt cttcttcatg gtgttttttc aaagctgcca 60
gttgttctct actctgtgct cggaaatata gtctctcttc agcctgctct ctctttccga 120
aggccccacc ggcttcccg atggagcccg cgccccggtc atcctcgag 169

<210> 2370
<211> 118
<212> DNA

<213> Homo sapiens

<400> 2370

gaattcggcc aaagaggcct actttgagga aagcagtggg attttgcttt ttgttttggg 60
agccatgttg tgtggtctgt ggacctgctt gctttttttg aatgtgagtc agctcgag 118

<210> 2371

<211> 107

<212> DNA

<213> Homo sapiens

<400> 2371

gaattcggcc aaagaggcct agctctccag tagaatttta gttgaattaa atcataagag 60
aaacaatgat tattgcacat attatacttg tcacactaca tctcgag 107

<210> 2372

<211> 136

<212> DNA

<213> Homo sapiens

<400> 2372

gaattcggcc aaagaggcct acttaagaag gaattaaaaa aaaaaagctt tgccaatagc 60
taaaaagtac aagctattaa aaatcagatt gaaaagtttt gagaaaatgt tatttttact 120
gaaagcaacc ctcgag 136

<210> 2373

<211> 104

<212> DNA

<213> Homo sapiens

<400> 2373

gaattcggcc aaaagaggcc tacagttaca ttccaattta gacgggtata ggattttggt 60
ttttcaagat gaaaaaactt atagtggtag gggttgcact cgag 104

<210> 2374

<211> 117

<212> DNA

<213> Homo sapiens

<400> 2374

gaattcggcc aaagaggcct atacttctgg gactggaata taaaaaagaa tcaaagggtc 60
tgattttgag ttgcaataaa gggaaagacc atgctcatag cagtgccaat actcgag 117

<210> 2375

<211> 133

<212> DNA

<213> Homo sapiens

<400> 2375

gaattcggcc aaagaggcct acaataaaga gatgcgtgtg actagttttg gacttttaac 60
cttaatgggg gttgcatgtc tcctattgtt aatcattgtc agctgcagtg acatgatcca 120
cagtcctctc gag 133

<210> 2376

<211> 529

<212> DNA

<213> Homo sapiens

<400> 2376

gaattcggcc aaagaggcct aatggcgggt gcaaattcaa gtctgtgtaa ccccggtggtg 60

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ttctttgatg tcagtattgg cggtcaggaa gttggccgca tgaagatcga gctctttgca 120
gacgtttgtgc ctaagacggc cgagaacttt aggcagttct gcaccggaga attcaggaaa 180
gatgggggttc caataggata caaaggaagc accttccaca gggtcataaa ggatttcattg 240
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ccatttgcag atgaaaattt taaacttaga cactcagctc caggcctgct ttccatggcg 360
aacagtggtc caagtacaaa tggctgtcag ttctttatca cctgctctaa gtgcgattgg 420
ctggatggga agcatgtggt gtttggaata atcatcgatg gacttctagt gatgagaaa 480
attgagaatg ttcccacagg cccaacaat aagccaagc aatctcgag 529

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<210> 2377

<211> 106

<212> DNA

<213> Homo sapiens

<400> 2377

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gaattcggcc aaagaggcct acatcatttg aacttatttt attgatactc attagtgaat 60
aaaaattgtg tgatttttga tgcattacaa cacactttta ctcgag 106

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<210> 2378

<211> 112

<212> DNA

<213> Homo sapiens

<400> 2378

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gaattcggcc aaagaggcct acgattttcta ttcttgaaag aatcaactac agtgaatcct 60
ttgcatttga agccttaaca tgcattgctt taattttgcc cagggtgctcg ag 112

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<210> 2379

<211> 103

<212> DNA

<213> Homo sapiens

<400> 2379

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gaattcggcc aaagaggcct atataattaa aaatttacta atgcaaacaa gattttacagt 60
ctttaataca atcttaattt tggaattcat gaaggaactc gag 103

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<210> 2380

<211> 102

<212> DNA

<213> Homo sapiens

<400> 2380

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gaattcggcc aaagaggcct aaacaaaaat atgttgtggc tgggtgccagt atttttgtta 60
atgaaatgtt cagtgtctca ctacagtctg atcgaactcg ag 102

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<210> 2381

<211> 105

<212> DNA

<213> Homo sapiens

<400> 2381

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gaattcggcc aaagaggcct actgctgttt aaagttaaca tttgaatgaa acactttttt 60
actaaagtat tagaaatagg agtgcaggtg aaggcaattc tcgag 105

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<210> 2382

<211> 118

<212> DNA

<213> Homo sapiens

<400> 2382

gaattcggcc aaagaggcct agttaatgag gccaatTTTT ccagcattta taattatttt 60
tttcacttgt taggaagcct ttgttatgta ttttctgtta atagtaccg ttctcgag 118

<210> 2383
<211> 116
<212> DNA
<213> Homo sapiens

<400> 2383
gaattcggcc aaagaggcct aagatgatgg tgatgatttt gttcggggc tcatttgtat 60
ttcttaccct ctgcaccatc caaagcagca gcataaactc agagatgatc ctcgag 116

<210> 2384
<211> 102
<212> DNA
<213> Homo sapiens

<400> 2384
gaattcggcc aaagaggcct agactacttg ttctgtgcc ctcttgtttt aggcctcggt 60
tactttttaa aaatgaaatt gttcattgct gggatactcg ag 102

<210> 2385
<211> 109
<212> DNA
<213> Homo sapiens

<400> 2385
gaattcggcc aaagaggcct attgtgattt aactagttag aattgtattc aagtgaactc 60
tgtttttctg aaaataaaaa tataacaat gagattggca ctactcgag 109

<210> 2386
<211> 148
<212> DNA
<213> Homo sapiens

<400> 2386
gaattcggcc aaagaggcct agatgtctcc cttgactctt ctgtgtatat gtgtgaatat 60
gtgtgtatat gtgtgtgtgt gtgtgtgtat gaagctggct ttatcagaat tactgggtga 120
tggtatggaa gaaagaaagg ctctcgag 148

<210> 2387
<211> 113
<212> DNA
<213> Homo sapiens

<400> 2387
gaattcggcc aaagaggcct atgaaaatga ttctgtctcc tttgaaagca ttcattttgc 60
tagaactggt agacacattg cagtatgctg tattgaaagt agaaatactc gag 113

<210> 2388
<211> 189
<212> DNA
<213> Homo sapiens

<400> 2388
gaattcggcc aaagaggcct aatggagacc aagctgaagc cactgagaaa atgggagaag 60
ttgcagatga cgtccagcga gcgcaggaag atcatgtgct cagtgcatt ccacgtcatt 120
gccatcacat gtgtggtctg gtccttgtat gtgctcattg accgtactgc tgaggagaag 180
gggctcgag 189

<210> 2389

<211> 158

<212> DNA

<213> Homo sapiens

<400> 2389

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gaattcggcc aaagaggcct aatttccttt tattgctgcg aaacagcaag ttaagacaaa 60
ttacagttaa atattagtta aaggtcacat gatgtgccac ataaacattt tgggcactat 120
gtaactttta aacttggtct attacatgcg ggctcgag 158

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<210> 2390

<211> 129

<212> DNA

<213> Homo sapiens

<400> 2390

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gaattcggcc aaagaggcct aaattaattt atgaatctcc tagaatgctg tctggcaatg 60
tgtttggttt tttcctgttt ggcaaagggtg tgtttttggt ttttagattc cagtgaacca 120
atactcgag 129

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<210> 2391

<211> 206

<212> DNA

<213> Homo sapiens

<400> 2391

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gaattcggcc aaagaggcct agaaacattt ttgcctggat gagttccttg ttggtaactc 60
tactgtgtc tctagtgaca ctagagatct cttagcgttca cctgacttgg ctgaattggt 120
ggtgccaggc agagtccctg gcagtagagc cacctcagat gaggcctggt gctgcaccta 180
cctccccctc aactaacaag ctcgag 206

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<210> 2392

<211> 102

<212> DNA

<213> Homo sapiens

<400> 2392

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gaattcggcc aaagaggcct aaatgtttta tattttataa atcatctttt gactctgtat 60
ttaaattcta tgatactgaa aataaaggca ttcacccctg ag 102

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<210> 2393

<211> 133

<212> DNA

<213> Homo sapiens

<400> 2393

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gaattcggcc aaagaggcct acgagatgaa gtctttgaat acattatatt ccgtgggagt 60
gacattaaag accttactgt ttgtgagcca ccaaaccac agtggttctt gcctcaagac 120
ccagcaactc gag 133

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<210> 2394

<211> 122

<212> DNA

<213> Homo sapiens

<400> 2394

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gaattcggcc aaagaggcct aggagtgggg gtgaggtaaa atgggaaatt ggatatgaaa 60
gaaatacaca cctacatgga aatgtttcaa cgtgcgcaag cgttgcgaca gcgggactcg 120
ag 122

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<210> 2395
<211> 109
<212> DNA
<213> Homo sapiens

<400> 2395
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tgatcttaac aatattttgt aaaatgatgc ttcccccttc gccctcgag 109

<210> 2396
<211> 135
<212> DNA
<213> Homo sapiens

<400> 2396
gaattcggcc aaagaggcct agaaaatgaa atgaaattga agaataatttt gcattatcta 60
gtcttatcac tgccattcta tgacacagga aataccattt gggaaactga gtttctattt 120
gaaaaaggac tcgag 135

<210> 2397
<211> 102
<212> DNA
<213> Homo sapiens

<400> 2397
gaattcggcc aaagaggcct agtctgtttg aagataagag gaaaagtaga acttaaaact 60
ccaaactaga gtacgtaaca ttgaaaaatg aggtcgctcg ag 102

<210> 2398
<211> 105
<212> DNA
<213> Homo sapiens

<400> 2398
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attctcttat aaaaaatgaa agtggagttt aagggtatgc tcgag 105

<210> 2399
<211> 163
<212> DNA
<213> Homo sapiens

<400> 2399
gaattcggcc aaagaggcct aaaaaactat gcatgttcta ttgttttcct ttttgattcc 60
ctttctttta ttatccccag taggagtgac ttgtaattct catatgtag aaaggcaggt 120
ctcctggttg aagaaaagat ccacccaagc aagtcagctc gag 163

<210> 2400
<211> 99
<212> DNA
<213> Homo sapiens

<400> 2400
gaattcggcc aaagaggcct aagcatcagt ttgttgtttt taaaaggata ttttaagtga 60
cattttctag ttcatatgaa aataaccata gtactcgag 99

<210> 2401
<211> 152
<212> DNA
<213> Homo sapiens

<400> 2401
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tgcatacaca agtggaaatt tgtattgcac tgattcttgc aagtcctttt gaaaacacag 120
aaaatgccac aattaccgat ccaagactcg ag 152

<210> 2402
<211> 167
<212> DNA
<213> Homo sapiens

<400> 2402
gaattcggcc aaagaggcct actctaactt ccgtaaggac acggatgctt aattacaaaa 60
ggttttgccc ctgtagtgac cgggcagcaa tgttatctgt ccttcattct tgcattgttt 120
tggaaattgc ttttgccttt acttttggc gccaaggcaa tctcgag 167

<210> 2403
<211> 162
<212> DNA
<213> Homo sapiens

<400> 2403
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aaccagctga tgtattttta tctgtttctg ttctatcttg taattaattt ggtgggttct 120
actgttttta acataaataa agagtatgca ccacgtctcg ag 162

<210> 2404
<211> 103
<212> DNA
<213> Homo sapiens

<400> 2404
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gggaatgaaa ctacagtgtg ttcatatgac ccataatact gag 103

<210> 2405
<211> 125
<212> DNA
<213> Homo sapiens

<400> 2405
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gttttttgtt tgtttgtttt tgtttttttt ttgagacgga gtctcagggtg acccaccctc 120
tcgag 125

<210> 2406
<211> 113
<212> DNA
<213> Homo sapiens

<400> 2406
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agttataaat ctgtgaaatg aaagtctttg tttccttaaa gggatttctc gag 113

<210> 2407
<211> 207
<212> DNA
<213> Homo sapiens

<400> 2407
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ctgatctctc ttcaccagac aaaagaaaag tacacaattt ctaaaatggt ccatttttta 120
ttgatgagta ttatactgc cttctgcctt cttctctttc ctcctattt aaaaactttt 180
ccgtttgtaa aaaccacaac actcgag 207

<210> 2408
<211> 105
<212> DNA
<213> Homo sapiens

<400> 2408
gaattcggcc aaagaggcct acaaagcact tgaaagaaga aactattcaa ataattacca 60
aggcatcaca tgagcatgaa gataaaagtc ctgaaactac tcgag 105

<210> 2409
<211> 194
<212> DNA
<213> Homo sapiens

<400> 2409
gaattcggcc aaaaggccta taccaaatag cgaattagcc atgggaaaaa gtagcaaata 60
aataattatt ttactttttc agatgctaatt tttctctttc gtttatttta ggattggtgg 120
gagctgtcca atgtccttag gctgttttcc aaatgagata ccaaaagcta gttctccatc 180
gggtgccgct cgag 194

<210> 2410
<211> 114
<212> DNA
<213> Homo sapiens

<400> 2410
gaattcggcc aaagaggcct agagtatttt ctatatattg aagctgttag atgcatagtc 60
atgatttttg gtggaatggt ttatcaattt ttgaaaattg cctttgcgct cgag 114

<210> 2411
<211> 268
<212> DNA
<213> Homo sapiens

<400> 2411
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ttttgttttt gatgatgttt cagcaatact ggataacaaa gacttgcac catctacacc 180
tttaaaaact ttatttcaaa atgacttctg gggaaccctt atgtctgagg agagaagcca 240
caagtcttac cgtccccacc acctcgag 268

<210> 2412
<211> 126
<212> DNA
<213> Homo sapiens

<400> 2412
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ggggcagcct aggaggagcc cagggaggcg gtggcttctc tccagggtaca tagaaggccg 120
ctcgag 126

<210> 2413
<211> 260
<212> DNA
<213> Homo sapiens

<400> 2413
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tcctgcttag ccatttcttt cctttttttt tcttctttta tcttcttttt ccttctctga 120
atctcatgca ggatttcacg ttgctcctgc tcttctttcc gcttggcctc caacagcgcc 180
tcgagaagtg gggaaactca acggtgtacg agtggaggac agggacagag ccctctgttg 240
tggaacgacc ccacctcgag 260

<210> 2414
<211> 663
<212> DNA
<213> Homo sapiens

<400> 2414
gaattcggcc aaagaggcct agttaaatga atccagattg ctgagagggc acggcaaggt 60
cgctaaggc ctttattcat gaagcaaatc tatctgcaag aatatagagc aaagcaatcc 120
aagatgcttg gcaagaaagt gacagatacc tgggctgctg cactccgcat tcagaagggt 180
tggcgacgtt tccatcaacg taaggaaact gaaaaactga gagaagagga gatgatcttc 240
ctgggtatga atccacctcc tctctttaat gaagtcagtg ctacagtaat ccaggctgaa 300
aagggtggacc gcctgcggaa tgaggtgcag ataaagcatg aagaggacta cagggaagcc 360
ctggttacca tcaagaatga cctaaagttg atagaaggcg tggatatcaa ggagaacctt 420
caagaccaga tccggcattg gtccatcgaa tgcagaaatt taaccgggac atttcttgac 480
taccctgacg ttgaagaagg agggtcagct attatttttt ctgacaagac catacaacag 540
gttattgagg atatcatagc aaaccaagag gaagaagaaa aaaaacaaaa agaagaagaa 600
gaaaaaggaa aaacaaccca agaaagccaa aaaacaaaag aaaggaacaa aggagtactc 660
gag 663

<210> 2415
<211> 585
<212> DNA
<213> Homo sapiens

<400> 2415
gaattcggcc aaagaggcct aatcgcttgc acctgggaga tggagattgc gattgcagtg 60
agccgagatt atgccactgc actccagcct tggcgacaga gtgagactct gtctcaaaga 120
aaaaaaaaaa aagagtccta tcttgcaaaa cagagcaagg tcatggctcc agtggcagaa 180
gaaaggacgg tcagtggcag gaaataggtg tgaacggaac agtcaccagg gcacccagac 240
acccccaggg aaatggcagg tgcagcttta tttcccgcac tatggagaga gggaaaaaaa 300
gtgtcagctc cttattaggg agagtaatta catcctttat aactgtgtac ctaattagtt 360
tgtttctaac catcctcacc atgaacaaac acattaaata attggagaga agaggagata 420
agaaagagaa ttaacatttg agaagagact accatgtgtc agacaagcac tgtgctcggc 480
atccttctgt atgttagctc tctaaccctc actaaaacaa acacacaaac caaagatgat 540
tcagtagttg atattttatc agctacatct cccagtgcac tcgag 585

<210> 2416
<211> 799
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (770)

<400> 2416
gaattcggcc aaagaggcct aaaatgattt caaataactt ttaatcaatt aaaccaataa 60
ttttaatttt aaattctgct cctctgaacc atagaggttt gtcagaggta cctcttggcc 120
tgccaggagg caaagtgaag gggagcagag aaggatggga ttgagggtag gtctctggat 180
ccctactttt tctgaaacag cagctttgat tccatgtttt tatatatcca tcttctgtat 240
gtgatctcac ttgaagaaag ggtctcaaag agtttgaaaa ccattgattg attatgccac 300
cctttattgt catcatcacc atcagacatc cacatctaata acgaatatat gtaaaacttt 360
ctataactaa tgcttaactg tgaaacctat gtgcttttcc ttgaatactg catttaaaat 420

```
aatcagtaaa cacttaaaag tgtatctgta cctttctgcc aatatttctg tagttttgta 480
aattgtggtt tgtgttgctt gcttatttat tgtcttgctt ttcaagtctt ttcaggagga 540
catgggctaa atacaatttt taaagctatc tcaaaatggt ttggaaaatt tgagggttaag 600
atagggtttt aaaaggctctg aaaaatataa tagagtctta aaaatggagt aattgcgtgt 660
tgtaacatga aagaaggcaa tgtctggaaa aattcaaaaa tagcaattta gcggaaatag 720
gaagagagga aggttaagagt gtttagggata aatgctcaaa agatttctcn gtttttttaa 780
aatatgcaac tttctcgag 799
```

<210> 2417
 <211> 237
 <212> DNA
 <213> Homo sapiens

```
<400> 2417
gaattcgcgg ccgcgtcgac gtgagtcttt tgtagaaacc tggccttttg tgttgatata 60
atttaactag agacacttag gaagcatcca ggcttagata tcaggtgtgc agttgtgctt 120
gtaacagggg atcttcgagc agaaatcaga cttcaggcta tacatttga ggtcttcac 180
acgtaggttag tatctaaagt taggagtgtg agcaagatga ggagggggag tctcgag 237
```

<210> 2418
 <211> 480
 <212> DNA
 <213> Homo sapiens

```
<400> 2418
gaattcggcc aaagaggcct agattatctc caggtggatc actggcagac gcatgggcac 60
atcaagaagg cactcatccg aaagacagaa atgtagaaaa actacaagtc ctgttaaatt 120
gcatgacaga gatttactat cagttcaaaa aagacaaagc agaacgtaga ttagcttata 180
atgaagaaca aatccacaaa tttgataagc aaaaactgta ttaccatgcc acaaaagcta 240
tgacgcactt tacagatgaa tgtgttaaaa agtatgagga atttttgaat aagtcagaag 300
aatggataag aaagatgctt catcttagga aacagttatt atcgtgact aatcagtgtt 360
ttgatattga agaagaagta tcaaaatatac aagaatatac taatgagtta caagaaactc 420
tgccctcagaa aatggtttaca gcttccagtg gaatcaaaca taccatgacc ccaactcgag 480
```

<210> 2419
 <211> 188
 <212> DNA
 <213> Homo sapiens

```
<400> 2419
gaattcgcgg ccgcgtcgac tagacctgct ctagtctgca tcattccttc ctctaccctc 60
actctggata aattatttta ttagtttctt atatgtcttt agaaagtctt tatattctta 120
accttttttg tttttatttt ctgttttttt tagagacacg gtctcactct gttgtccagg 180
ctctcgag 188
```

<210> 2420
 <211> 205
 <212> DNA
 <213> Homo sapiens

```
<400> 2420
gaattcgcgg ccgcgtcgac tgttgagttc cttatatagt ctaggtatta accccttaga 60
tgcatagttt gcaaatattt tcttccattc tgtaacttgc ctcttcattt tgttgactgt 120
ctcctttgct gtgaagaagc tttttaattt gatgcaatcc tgtttgtcta tttttgcttt 180
ggttgccctg gccacgtcgc tcgag 205
```

<210> 2421
 <211> 266
 <212> DNA
 <213> Homo sapiens

<400> 2421
gaattcgcg cgcgctcgac cccaggtaga gcaagaagat ggtgtttctg cccctcaa 60
ggtcccttgc aatcatgtca ttctacttt cctcactgtt ggctctctta actgtgtcca 120
ctccttcatg gtgtcagagc actgaagcat ctccaaaacg tagtgatggg acaccatttc 180
cttggaataa aatacgactt cctgagtacg tcatccagc tcatatgat ctcttgatcc 240
atgcaaacct taccacgcag ctcgag 266

<210> 2422
<211> 199
<212> DNA
<213> Homo sapiens

<400> 2422
gaattcgcg cgcgctcgac taaaccttca tctgtcttct caacctatct accattcact 60
catcgactga ttcattcatt cagtatctag tcctgtatct atctgtccat ccaacttcca 120
atccactcac catttatcag tcaagatgct cccccaccc aataactacc cattcacagc 180
ttggaaccga aagctcgag 199

<210> 2423
<211> 247
<212> DNA
<213> Homo sapiens

<400> 2423
gaattcgcg cgcgctcgac acagtacaca gacgaccaca ccctcagcat cttgtccaga 60
aagcaattca gttaatcagg tagaagatat ggaaatagaa acctcagaag ttaagaaagt 120
tacttcatca cctattactt ctgaagagga atctaattct agtaatgact ttattgatga 180
aaatggtctg cccatcaaca aaaatgaaaa tgtcaatgga gaatctaaaa gaaaaaccgt 240
actcgag 247

<210> 2424
<211> 353
<212> DNA
<213> Homo sapiens

<400> 2424
gaattcgcg cgcgctcgac agcatggggg gctggagtgc cggtttttct tgttttttct 60
ctttattcgt cctttctcaa agatgggata ctgatcagaa ttgctctgta tatgcttggg 120
actggatgga aagacttttg agcagctgtg gggggtgggg ggacaccgac aaccaaacag 180
acgtgctggc tccagtcctg tttttacttt caaaaaccaa caagcccgac agtggagcct 240
gtccctctcc aggagggtgc tcatggcccc actcacctca tcacccacg gaaacctttg 300
tgtcttgccc tggaagacac ccgaattctt tgtacattga catgcccctc gag 353

<210> 2425
<211> 249
<212> DNA
<213> Homo sapiens

<400> 2425
gaattcgcg cgcgctcgac ctctgttgaa aggcaacaga ttcagtaata cagtgtctatt 60
ttcaagtgtg gcatcattct ttctagtctt tgctacttt ttctcaate ccttcaggtc 120
ttctctgtgc ctactggttt atcagtcacg caattatttg ggcaaagttt atacctagaa 180
tttttgttct acccctctgg ttctctgact gccatgtttt tcccatttaa atttctagct 240
gtcctcgag 249

<210> 2426
<211> 195
<212> DNA
<213> Homo sapiens

<400> 2426

```

gaattcgcgg ccgcgtcgac gttttttttt gttctaagaa agtttatcct gtatttctat 60
ttagaagttt tagagtgtta gcttttagat taaaaaatgg tttacttttt tattttgaga 120
tggagtttca ctcttgttgc ccaggctgga gtgcaatggt gcagtctcgg ctcaccacaa 180
ccttcatttc tcgag                                     195

```

<210> 2427

<211> 175

<212> DNA

<213> Homo sapiens

<400> 2427

```

gaattcgcgg ccgcgtcgac cctaaaccgt cgatcgtagt tcaaattgga ttgtggttta 60
ttggaggcag cttggctata gggttatttt gcagtgcagt ctgctgattc atcaggtcac 120
tctgggccca agccactgga tccagatgaa atgttctttc caggcagcgc tcgag       175

```

<210> 2428

<211> 168

<212> DNA

<213> Homo sapiens

<400> 2428

```

gaattcgcgg ccgcgtcgac taaatattag gagttaaaaa aataaaaaca atttgccttc 60
aacattgata cgtgttatat tctcatcatg ctagttagat tttttaacta tggtagaata 120
catacgattt ttgtgttgac ttatataaca tttaaccagc gtctcgag       168

```

<210> 2429

<211> 224

<212> DNA

<213> Homo sapiens

<400> 2429

```

gaattcgcgg ccgcgtcgac cttaataaac aatagtatag taaaaacata atttttatat 60
gcactggaaa ccaaaaaatg tgtgttaact actttattgc gatattcact ttattgcaat 120
attcacttta ttgcagtgat ctggaaccaa acctgcaata tctgcatggt atgcctatat 180
atgtatgtct agatttaact tatgaaatgc caggttctct cgag       224

```

<210> 2430

<211> 315

<212> DNA

<213> Homo sapiens

<400> 2430

```

gaattcgcgg ccgcgtcgac catattttta aaagtctttc tcctacctac atcctcttct 60
attctattat cccacatcc agttttatta attacttttt tctttctttc tggttttttt 120
ttttagagaa tgagggtctg ctatgtacaa gcatgcacca ttgcaccggg cttagtttta 180
ttagtttcta atatatcctt tcagtgtttc tttctgcaaa tccaaatata tagtcttatt 240
tccccctttc ttacacaaaa agaagcaaac tatacatgct gttttgtcgt ttgtctttat 300
tcacacaatc tcgag                                     315

```

<210> 2431

<211> 214

<212> DNA

<213> Homo sapiens

<400> 2431

```

gaattcgcgg ccgcgtcgac aaaaataaaa tatttttaaaa agcaggatgc aatattttat 60
gcacactatg tgtatttatt tgcccatact ctttcagctg gaagctatag aaacccaaat 120
caaattgact tctgcaaaaa taacaaaaat caagaaattt cttggctcac aggaacctgt 180
aaagcctgga ggaaagggtc tacaacagct cgag       214

```

<210> 2432
 <211> 193
 <212> DNA
 <213> Homo sapiens

<400> 2432
 gaattcgcg cgcgctcgac gaagaaat ttt aggagcttgc cacaccagc catctcaaca 60
 acatcccaaa atgcattctt accatgctgg agatcccaaa gttctcagag gctcttgtgt 120
 tagaaacctg ggaccaagac caaatattaa aacaaaagat gttcctgtca catctatcac 180
 tgagggtctc gag 193

<210> 2433
 <211> 179
 <212> DNA
 <213> Homo sapiens

<400> 2433
 gaattcgcg cgcgctcgac taaaaaaaa aaagtacaat ttggtgact ttggcatatc 60
 ttaatatcca tgaaaccatc aagattatga ttatatccat catccctaga agtttcttcc 120
 tactgctttg tattcccttt cttaccctcc tcttgatac ataccccccc atcctcgag 179

<210> 2434
 <211> 235
 <212> DNA
 <213> Homo sapiens

<400> 2434
 gaattcgcg cgcgctcgac ctttttctaa agaataat ttt gttgtggga cctccctcgc 60
 attataggta agaattgatt gtgttggagt ttttgcgtg ttttatacca cttttctacc 120
 tgtgtttata gtgagagagt tggttctgct tttgttcagt ttgccacgtt gctagaacca 180
 gaagtcagtt ttttttcctt tgaatttggt ttgaaaat ttt gtgatgcagc tcgag 235

<210> 2435
 <211> 373
 <212> DNA
 <213> Homo sapiens

<400> 2435
 gaattcgcg cgcgctcgac cgaaatggcg ccctccggga gtcttgagc tcccctggca 60
 gtcctgggtgc tgttgctttg ggggtgctccc tggacgcacg ggcggcggag caacgttcgc 120
 gtcacacagg acgagaactg gagagaactg ctggaaggag actggatgat agaattttat 180
 gccccgtggt gccctgcttg tcaaaatctt caaccggaat gggaaagttt tgctgaatgg 240
 ggagaagatc ttgaggttaa tattgcgaaa gtagatgtca cagagcagcc aggactgagt 300
 ggacggttta tcataactgc tcttcctact atttatcatt gtaaagatgg tgaatttagg 360
 cgctatcctc gag 373

<210> 2436
 <211> 155
 <212> DNA
 <213> Homo sapiens

<400> 2436
 gaattcgcg cgcgctcgac tcaggctaag cctcagcttt gctctttggt ttttatggta 60
 ttacttcagt aattattcca aagttctatt cattcatgct tgttttgttt tggatttttag 120
 taaggacagt cctgtgtgaa ggcgctgacc tcgag 155

<210> 2437
 <211> 206
 <212> DNA
 <213> Homo sapiens

<400> 2437
gaattcgcgg ccgcgtcgac gagatacttt cctaaaaagg aaaaataaaa aacaaaatgg 60
tgccactttg gggtgaagct accttggttag gcttgaattc atttatatgt cttttgattc 120
ttaaaaaaac aaaaaacatt ccattagaag caccagtttt tttgtcaga ctttgtggat 180
cagactctac actcaacaca ctcgag 206

<210> 2438
<211> 231
<212> DNA
<213> Homo sapiens

<400> 2438
gaattcgcgg ccgcgtcgac cgattgaatt ctagacctgg actctaacac ttgttaaact 60
tatccccatt tgcttatctt aggtcccat ttatttatac agtatatttt gctgaacctg 120
tttttttatt ttgatttttt cttttttgaa acagaggctc tctctgtgc ccaggctgga 180
gtgcagtggc atgacctcag ctactacaa cctccgcctc ccgcactcga g 231

<210> 2439
<211> 247
<212> DNA
<213> Homo sapiens

<400> 2439
gaattcgcgg ccgcgtcgac attttatgct tctccttttt tccccgcaac ttgaactgtg 60
actctttcag atatttctta aatctgtatg agtcattttt taagcttagg gatttgatat 120
gtattaatgt cccctttgtc ttctgtagat ttagcattt tattacctct taagaaactc 180
tgggcccaga ctttcagtca tatttcttat tcctatggta cagttctcac ttaaaggctt 240
actcgag 247

<210> 2440
<211> 195
<212> DNA
<213> Homo sapiens

<400> 2440
gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt ctagaccac ctactatact 60
atgagctctgt atttgtgttg tttttttttt cttcgaaaac catctgtaac cattgttttt 120
atcattttat tttatttttt aagttttatt tttttttttg agacagggtc ttgctctgtt 180
accccggtc tcgag 195

<210> 2441
<211> 222
<212> DNA
<213> Homo sapiens

<400> 2441
gaattcgcgg ccgcgtcgac gagggatttg ggggtggtgag tgggaaggct gtgtctccgg 60
aagaagaaat atacgtcccc acctcactct aattaaacct gcttttccag cgcgataaat 120
attcaagata accttttggt tgcatttcaa taacaaagtc ttgcaccact atcttcagtt 180
taaaaaaaaaa gtttaatgtt tgctctacgt ttctgcctcg ag 222

<210> 2442
<211> 266
<212> DNA
<213> Homo sapiens

<400> 2442
gaattcgcgg ccgcgtcgac cacagtgaac catatacata agcctataaa aaaagatttg 60
tgcaatttga aagcctgtta attttttatg tagacatacc tacacacgaa aggggttaaat 120
tcacagcctt actagttcct tgcttccagt atttcaattg gtctctctcc ctcattatta 180

ttattactac tagtactatt atttttgcac atagttaact gcccttcaat atgattctta 240
 aaaagtgcgtg tttctgtggt ctcgag 266

<210> 2443
 <211> 220
 <212> DNA
 <213> Homo sapiens

<400> 2443
 gaattcgcg cgcgctcgac gcagtggtt gatgatgctg ttgaaatttg ttatgtcctt 60
 tctgatttct gtctggtggg tctatccatt tctggccagt tgcactctta aggctggtgg 120
 gttgtccgtt gtcaactcag caaccctcca tttcccttct caaagcagaa agagaaacca 180
 ggttctatgt ttctccagat cctttcccat atctctcgag 220

<210> 2444
 <211> 265
 <212> DNA
 <213> Homo sapiens

<400> 2444
 gaattcgcg cgcgctcgac cacagctcta gcacatgtat tgttaaaagt ggagttacta 60
 agtttttaggg tacatgtatt ttccactgta ctagataaca cccaattgat ttcacagaaa 120
 taattttatat atcaattttt tattaagtcc ctttgtcatg tgttacaagc tttttttttt 180
 tttagtttgt cttttggctt tgtttatggt gcttaaaaat tgtaaccaa ttcaccaatt 240
 aaaaaaatt gtggccagac tcgag 265

<210> 2445
 <211> 130
 <212> DNA
 <213> Homo sapiens

<400> 2445
 gaattcgcg cgcgctcgac ggtgtagtgt atagtataac gagaaaggag tgtttatcag 60
 aattttttta catcacagga ttatacctga ggcaataatg aaatggcatc taacagctcc 120
 ccttctcgag 130

<210> 2446
 <211> 218
 <212> DNA
 <213> Homo sapiens

<400> 2446
 gaattcgcg cgcgctcgac gccttcccc tgtgaattta tatgaagaac ttcacagtgg 60
 cagggtctaaa cacaacagca gaccattaga gtagatctaa caggacaaaa gaaaatacaa 120
 agagaagcaa gccagtggt aacagaaaca aggaaaaaac accaggaatg ctgtttacct 180
 tgagcttttt aaagaacttt tatttccatt tactcgag 218

<210> 2447
 <211> 292
 <212> DNA
 <213> Homo sapiens

<400> 2447
 gaattcgcg cgcgctcgac cgtcgattga ttctagacct gccttctcat tcttcatttt 60
 cgataagcaa tctaggtctt gaattgcttc atgtgtttta atgttggtta acattcctgt 120
 aaacctgatt atccaactgt tttctatgga tttctatctg tatgtctggg ttgttttttg 180
 tttatttgat tttttgagac agggctcttc tctgccgctc aggggtggagt acagtggcat 240
 gatcttggtc cactgcaacc tccgcctccc gggctcaagc aatccactcg ag 292

<210> 2448

<211> 155
 <212> DNA
 <213> Homo sapiens

<400> 2448
 gaattcgcgg ccgcgtcgac accagggcaa cttttcttga attcttttcg aagatcaaaa 60
 aaggaataga agcattcagg taatagtaca ttcttcttgg aagcctcagg atgcaggatt 120
 tgcctgacat gaagctgccc atcagtagac tcgag 155

<210> 2449
 <211> 452
 <212> DNA
 <213> Homo sapiens

<400> 2449
 gaattcgcgg ccgcgtcgac atggacacaa gttagctggg aggattagaa ttgactgac 60
 agactcctgt tttattaggg agtacggcca tggcaactag tctcacgaat gtaggaaact 120
 catttagtgg tccagctaatt cttttagtgt ctagatctaa taagtctcag aactcgtcag 180
 tggaagatga tgatgatgtt gtttttatcg aacctgtaca acctcccca ctttctgtac 240
 cagtggtagc tgatcaaaga accataacat ttacatcatc aaaaaatgaa gaactacaag 300
 gaaatgattc caaaattact ctttctcaa aagagtggc atctcagaag ggaagtgtaa 360
 gtgagacaat tgtcattgat gatgaagagg acatggaaac aaatcaaggg caagagaaaa 420
 attcctccaa ttttattgaa cgaaacctcg ag 452

<210> 2450
 <211> 100
 <212> DNA
 <213> Homo sapiens

<400> 2450
 gaattcgcgg ccgcgtcgac ttaaatagat aatgctttta aaatatttaa tcagcatctt 60
 attctataag agtagatcat tatgtccccc atccctcgag 100

<210> 2451
 <211> 134
 <212> DNA
 <213> Homo sapiens

<400> 2451
 gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt cttgcctcga gtgttggtac 60
 tgtagataga gcagagtagt aatcaccaca ctgggtatcc aatggcaatg aggtcatttt 120
 cccagttcct cgag 134

<210> 2452
 <211> 229
 <212> DNA
 <213> Homo sapiens

<400> 2452
 gaattcgcgg ccgcgtcgac aaatgatatt aactgggttac atgaatgggc ttaaaagtct 60
 aatgggtttac attattttct ttaagaagtc tattttttat ttatttattt ttatttattt 120
 gagaccctgt ctcaataata ataataataa taatattatt ataataggtg cctatgcaca 180
 ggggaaccagg gaagactttg aagaggaagt acttacacgt agactcgag 229

<210> 2453
 <211> 237
 <212> DNA
 <213> Homo sapiens

<400> 2453

```

gaattcgcgg ccgcgtcgac tctgtatcaa ggtatcaaac aagacctag agattgaagg 60
tcctagtggg ggtattaaat ttttgcataa aaattaatga ccatgcaatg tttcacagcc 120
atttttctct tcctttctaa cagccttggt agatactgta tttttgagaa tatagagaca 180
gaaagagaag ttaataaccc attcagagtc tgggtctaaaa tccaaggctc cctcgag 237

```

```

<210> 2454
<211> 150
<212> DNA
<213> Homo sapiens

```

```

<400> 2454
gaattcgcgg ccgcgtcgac ttctgcttta ttttgtttta tatgacattg atgatgtcca 60
tcctagtggg cccatataat tcttatcaat tattttaaat gctgtttagc attgtactat 120
ataaaaaatat caaaacacag ctccctcgag 150

```

```

<210> 2455
<211> 259
<212> DNA
<213> Homo sapiens

```

```

<400> 2455
gaattcgcgg ccgcgtcgac acaagaaata tcagtcattg gtttatccag accagtcttt 60
catttccagt gttataggcc aaagcaaaca gacttcccaa catcaaatag tctcacgagc 120
tgaaatggca ttcttgctt gtaggcattg ggtagtaaca ctcttaggtg aaagaattgg 180
atcaaggggtg acaatggcgg ccaggaaatg tctattatgc atgggggtgt tcctttctct 240
tgctgccgtc ttctctcgag 259

```

```

<210> 2456
<211> 202
<212> DNA
<213> Homo sapiens

```

```

<400> 2456
gaattcgcgg ccgcgtcgac tggggaattt ccttaattct tccagtcctt ttattgagtt 60
ttcatttctg ttcttgatt ttaaacttct aatgagctct ttttctctg aatgtttgtt 120
gtggatatta atgattttta gaacatcttt cttcttggtg catactgttt atttggcaag 180
ttgcttcccc caaccctcg ag 202

```

```

<210> 2457
<211> 269
<212> DNA
<213> Homo sapiens

```

```

<400> 2457
gaattcgcgg ccgcgtcgac gaaaattata gaaaatccaa atatcctggc tggggtgaga 60
gtctgtaagc tagccagaga aaacagctaa ggctaagaaa ataaaatata ggagaaaatt 120
ctagaaaatc cagatatcct ggctgggggtg agagtcctgta agctagccag agaaaagagc 180
tgaggcgaag acaataaaat ataggagaaa attctagaaa aatgaaaatt ggtttattgt 240
cccagatctg tacccttctc cccctcgag 269

```

```

<210> 2458
<211> 233
<212> DNA
<213> Homo sapiens

```

```

<400> 2458
gaattcgcgg ccgcgtcgac cactgatgct gaagtactat gagccttcgg aacttggtga 60
gagactacaa agttttgggt gttatgggtc ctttagttgg gctcatacat ttgggggtgg 120
acagaataca aagcagccct gttttccaaa tacctaaaaa cgacgacatt cctgagcaag 180
atagtctggg actttcaaat cttcagaaga gccaaatcca gggacgactc gag 233

```

<210> 2459

<211> 283

<212> DNA

<213> Homo sapiens

<400> 2459

```

gaattcgcgg cgcgctcgac cctaaaccgt tgattgaagc cagtgaagtt gtgcttttcc 60
tctacttcta ctctctctcc cgcacctttt tctgccagtt gtaggtgtat tcttaaattc 120
agacaggggg agattctttc acatatcact cagttacctc ccaatctggg ggagtttttc 180
ttacaacttg ataccagata ccattaattt tacattcctg aataaaggcc tagtaccac 240
gcatatttca accatgcata tatcaagttc aaccgcgctc gag 283

```

<210> 2460

<211> 274

<212> DNA

<213> Homo sapiens

<400> 2460

```

gaattcgcgg cgcgctcgac tatataagg ccaaaagtac ttaactttta aaagtttagca 60
atataatctc tcttctgcta taagggtcaag tcttttgtga tagccttact agcaataata 120
gaaaattgaa aaaaagcatt ttagttcccg tgtttaaaaa tatttcttgt aagtgttggt 180
attgcaaatg aattattacc aaatgttaat aatctattat gtcttgtttt ttaaagttaa 240
tgaattttta gcttttgagg gccccatct cgag 274

```

<210> 2461

<211> 159

<212> DNA

<213> Homo sapiens

<400> 2461

```

gaattcgcgg cgcgctcgac ttttgtctgg gttgtcacat ttatgtgtgt agggttgtta 60
cgttatcctt ttgagtctgc agagtctatg ttgtatcccc ctattttatt cccggtatta 120
ggtatttgta tcctctctct ttttgtgtgt agtctcgag 159

```

<210> 2462

<211> 196

<212> DNA

<213> Homo sapiens

<400> 2462

```

gaattcgcgg cgcgctcgac aaaagttttt aggccagtgc aaattatgca gtagaacttg 60
tggtgcaaaa ggaattataa cccatacttt aaaaatgctt aatccctcat attcaatttc 120
atcaagcctt gtatacttct gcttaaatgt aattcaatcc ttggttggtta tggcaaacag 180
aaaccaacg ctcgag 196

```

<210> 2463

<211> 266

<212> DNA

<213> Homo sapiens

<400> 2463

```

gaattcgcgg cgcgctcgac agactgcgaa ggagagttat ttctgattca aattttttat 60
ttctggattt tccattttgg ctctttttta tagtttctgt gtattcactg aagttcccca 120
cctctccatg catgttgcc acattttcca gtaaatctt tagcattttt atcattattg 180
tgaagtcccc gtctaactta ttatctggac agtctctgag tatgtttcca ttgactgttt 240
cgtctcatgt agatcacgta ctcgag 266

```

<210> 2464

<211> 619

<212> DNA

<213> Homo sapiens

<400> 2464

```

gaattcgcgg ccgcgtcgac tgatggaact acatgaaact atggcatcct tacagagtcg 60
cctgcggaga gcagagctac agcgaatgga agcccagggt gagcgagagt tacttcaggc 120
agccaaggag aacctgacag cccagggtgga acacctgcaa gcagctgtcg tagaagccag 180
ggctcaggca agtgctgctg gcatcctgga agaagacctg agaacggctc gctcagcact 240
gaagctgaaa aatgaggaag tagagagtga gcgtgagaga gcccaggctc tgaagagca 300
gggcgaactg aaggtggccc aagggaaggc tctgcaagag aatttgccc tcctgacca 360
gaccctagct gaaagagaag aggaggtgga gactctgcgg ggacaaatcc aggaactgga 420
gaagcaacgg gaaatgcaga aggctgcttt ggaattgctg tctctggacc tgaagaagag 480
gaaccaagag gtagatctgc agcaagaaca gattcaggag ctagagaagt gtaggtctgt 540
tttagagcat ctgcccattg ccgtccagga gcgagagcag aagctgactg tgcagaggga 600
gcagatcaga gagctcgag                                     619

```

<210> 2465

<211> 202

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (44)

<400> 2465

```

gaattcgcgg ccgcgtcgac agaagtaaaa ggggtgtaag cttnttttaa atttttaaaa 60
tatgaaggaa attttttttt ttttaaaggc aggggtctcat ttgttaccga ggctctggag 120
tgcaagtgtg ctattacagc tctctgcacc cttgacctgc caggctcaag tgatcctcct 180
gcctcagctc cccaccctcg ag                                     202

```

<210> 2466

<211> 263

<212> DNA

<213> Homo sapiens

<400> 2466

```

gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt ctagacctgc ctctcagtat 60
cccccggaag tcattattat catttgccat ctgaatccat tataacctgt ttactttcaa 120
tttttatgtt ttttactttt atattttttt ggagacagta tctcactctg ttgcccagac 180
tggaatgcag tggcatgatc atagctccct gcagccttga actcttgggc tcaagtaatc 240
cttccactcc agggccccctc gag                                     263

```

<210> 2467

<211> 249

<212> DNA

<213> Homo sapiens

<400> 2467

```

gaattcgcgg ccgcgtcgac cgattgaatt ctagacctgc ctcgagtgtt ccaacaacca 60
tcagttatgg cctatctgct tttctccttc ctgtattttt tttttcttga gacaggatct 120
cactttgtca cccatgctgg agtgcatggt tgtgatcact gcttactgtg tcccttcaac 180
ctcccggtgt caagagatcc tcccatctta gctttccaag tagctaggac tacagacgca 240
cacctcgag                                     249

```

<210> 2468

<211> 240

<212> DNA

<213> Homo sapiens

<400> 2468

```

gaattcgcg cgcgctcgac aacggactga aagacaaatt aatcttggtg aaaggatttt 60
tcattcttta tttctatttg ccagtgttag tcagtgttct gctggcttag attattacct 120
ttttctggtt ccttactgtg ttttattctg atgggtccta gaaatccctc tcctgaccac 180
ttgtcagaat cagaaagtga ggaagaagaa aatattagtt acctaaatga gagtctcgag 240

```

<210> 2469

<211> 246

<212> DNA

<213> Homo sapiens

<400> 2469

```

gaattcgcg cgcgctcgac ggacataagg ggaacctagg tgaaggatag atgggaatct 60
tttgcttatt ttctgtaact ttaaaatttt ttcacaataa aaatgaagag agtatgtttg 120
cttagtattg tgtatacaact gcaacagttt agtattcaag aatatataaa atccccactt 180
agccaaacctt ttcaggatgt gccgcacctg cccaatacac ttttatattc tagccaaaaa 240
ctcgag 246

```

<210> 2470

<211> 224

<212> DNA

<213> Homo sapiens

<400> 2470

```

gaattcgcg cgcgctcgac attatcttta atatatattga cattgaacat ttgtttgtta 60
aaccacaaaa aagtttcaaa caagagaaat ctgttttgac tgttggaagg cagagacagc 120
acaagattag cctgttctgc tgaagtcata gttcaacctt aatgaacgac aaggaataaa 180
agactgtaca tatgaggtgt gtagtattag cgtgcttgct cgag 224

```

<210> 2471

<211> 257

<212> DNA

<213> Homo sapiens

<400> 2471

```

gaattcgcg cgcgctcgac aaattatttt ttatttcaat cattttaaat acattccttc 60
tactggcatt cactgttag attcccgccc cccccccgc cctgctttt caactaatat 120
agttcctact taaaagacag gatacattgt tttcctctac ctacttattt tcagagtgag 180
gagttattgt tagaagtatt cactcatctt taatgaaatt gttttgttca tcagattatt 240
tcaggagagc cctcgag 257

```

<210> 2472

<211> 231

<212> DNA

<213> Homo sapiens

<400> 2472

```

gaattcgcg cgcgctcgac gggagtttcc tcattaaaag gaatccagtt atttgaccgt 60
ataaaaattat ttggaatgcc tgctaagcat cagcctgatt tgatataacct ccgttatgtg 120
ccgctctgga aggtccatat tttcacagtc attcagctta cttgtttggt ccttttatgg 180
gtgataaaaag tttcagctgc tgcagtgggt tttcccatga tggttctcga g 231

```

<210> 2473

<211> 179

<212> DNA

<213> Homo sapiens

<400> 2473

```

gaattcgcg cgcgctcgac gtctggggga gcatgattgt tctgggcaca caggccctgg 60
ttgaaagttt ccttgtctgc agagttctgc tgcattgtaac ggaacagaga agccataacct 120
tgtttctcag atgggggtgt accaaagaac tggctgagga tgtgggtggt gacctcgag 179

```

<210> 2474
 <211> 423
 <212> DNA
 <213> Homo sapiens

<400> 2474
 gaattcgcg ccgcgtcgac aaaatctgag ggtatgatgt acaactttta cacatgatac 60
 atgaacttta acacaattgt gaattagagc ccaacttagt tcaagacaaa atgtatctcg 120
 aacacttctt ttcttcttaa aatattcagca ataattctagt atccaaagta ggagattcat 180
 catcacctta agacttctta gcagtttttc ttgtgtgaca aaatatttta cacctttatt 240
 tgagaacaaa ggaagattat gagagaccac tagaaatgga attttagcat ttcgaaggaa 300
 tttttatatg acgttggttc tcttggaat tcagaaagca ctccaggaat ttgtctagtt 360
 agtggtttgt atatattaga atctgtgtct atttcctttg taaaaaata cgaagacctc 420
 gag 423

<210> 2475
 <211> 226
 <212> DNA
 <213> Homo sapiens

<400> 2475
 gaattcgcg ccgcgtcgac ttctagacct gcctcgagcc ctgccctttt caccttatct 60
 gctgttattc aaaccacaaa atatttatta agcccttctt ggctaacttc tcccacccca 120
 acaaataaac acactctaata caagccaatc tccctattgt tcccttgaac ttgtcgggct 180
 tttccttttt atgcttttgt tcatgctttt tctactccca ctcgag 226

<210> 2476
 <211> 273
 <212> DNA
 <213> Homo sapiens

<400> 2476
 gaattcgcg ccgcgtcgac caaaaataca tcacagcctt ctcaaacagc tcaagcaata 60
 tattgtatat tgccatatcg tctggtgaaa ggggttaaatt acttcacctc ttgcactttt 120
 agatgcaaat cagtttttca tttctgtaat agaaaattat tcacgtattt ttacatcatt 180
 tgtttttcct gaccagtatt taaaacaaa aggatattct gaaaaatggc caacaatttt 240
 tttagaagta gcatcccaag cagcgaactc gag 273

<210> 2477
 <211> 245
 <212> DNA
 <213> Homo sapiens

<400> 2477
 gaattcgcg ccgcgtcgac agatttcata atatactagc ttctgttga atgtatcagg 60
 gattaggttg tttattttta tttttattta ttttttggg gttcggagtc tctgtctgtc 120
 tcccaggctg gagtgcagtg gtgccatttc ggctctctgc aacctccacc tcccagggtc 180
 aagtgtattc cctatctcag ctactctgga ggctgaggga gtatggggca ggagaattgc 240
 tcgag 245

<210> 2478
 <211> 268
 <212> DNA
 <213> Homo sapiens

<400> 2478
 gaattcgcg ccgcgtcgac ttactgcatt gtttgtcact gggaacccaa ggataaaaga 60
 gtagcataag ctgctgaatg ttgccatatt aaaggagaga acttggtaac gtgaagtatt 120
 tctcattgaa atgctttccc ttttgtatat agccagtgtt aaatccttaa atgcaatata 180
 gcctctgatt attgagcttc ctcttaaaaa gattttttta ttttatgtag ccaacattgc 240

```

agtactgtat gctcaaacac aactcgag                                268

<210> 2479
<211> 224
<212> DNA
<213> Homo sapiens

<400> 2479
gaattcgcg cgcgctcgac cctaaaccgt cgatctaatt acagaacatt ttaatcactc 60
ggaaaagaaa tctgtatcca tccattaagc agtcattgcc tgttccccctt gaccccagcc 120
cccggaacc actaatctac tttctgttgc tattgatata cctgttctgg acattttaca 180
taaatggaat tataacaacat atgatgtttt tatgtgtgct cgag                                224

<210> 2480
<211> 225
<212> DNA
<213> Homo sapiens

<400> 2480
gaattcgcg cgcgctcgac gaacaagggt tctttgctaa tggagcctat attctgggtg 60
aggattggac acctgaacac acagatgtct gcagatttcc tggccttcac cttgtcctat 120
gtcaaagact ccattactgc taaagtactg tttatcttaa taatgggtgac ttttgttgtt 180
gttttttttg agtcagggtc tcgctctgtt gcccaggacc tcgag                                225

<210> 2481
<211> 226
<212> DNA
<213> Homo sapiens

<400> 2481
gaattcgcg cgcgctcgac gggcgcccaa cagcttttat cccattctt agagcatatt 60
ctttattata atgattatcc aacatatttc ttttaattta atacaaaaaa tacatcattt 120
aatttttgtt acatatgaac attcattttt aaatgctcag cctcaagtgc aggcatTTTT 180
gagtggcctg attacatatt cctcccacag caagtccgat ctcgag                                226

<210> 2482
<211> 209
<212> DNA
<213> Homo sapiens

<400> 2482
gaattcgcg cgcgctcgac agcaccagtt gattcgggtg ttttgaggaa aatttgggag 60
gcaaataagt tataatataa attgctttat tgttgaactt actactcagt cactgagaat 120
ttctattaat gtccttctct cgtagttcaa atatcaacct ttcccttcct atctatagga 180
ttctattgtt atttgggtgc atactcgag                                209

<210> 2483
<211> 283
<212> DNA
<213> Homo sapiens

<400> 2483
gaattcgcg cgcgctcgac cctaaaccgt cgattgaatt cttagcctcc gagtagctgg 60
gattacaggc atgcgccact acgcctggct agttttgtta tttttagtag agacgggatt 120
tctccgtgtt ggtcaggctg gtctcaaact cctgacttca ggtgatccac ccacctcagc 180
ctcccaaaat gctgggatta caggcatgag ccaccttgcc cagccttttt ggaaaaattc 240
taacaatcca ccaaaattta aacttgacct tgatccactc gag                                283

<210> 2484
<211> 390

```

<212> DNA

<213> Homo sapiens

<400> 2484

```
gaattcgcgg ccgcgtcgac acaattttta aaaaatagtt caatgcccgag aaaatcccgc 60
ccatgctaca caagacgaga ttctctgcat gcacagcgct ggggtgggaga acccagaggc 120
agctgtgagg acaggggcca cggcagccaa tgtggcctcg tgaggagtga ggctgggagc 180
caggggtgggc ctctgagctc ctctcaacc cagaaggtgt gaggccctct ccacttgac 240
acgtacccttt caccctaaaag aaaaagactg gcgaaaacaa cggcccaggt caccggacac 300
gccccggctt tggacagccc accttgactg cattgcctca cgctcgacat ttacagcgt 360
gagacttcgc aaagtgagcc aggtctcgag 390
```

<210> 2485

<211> 102

<212> DNA

<213> Homo sapiens

<400> 2485

```
gaattcgcgg ccgcgtcgac cgctgattga aaaactctag ccaacaagac aactcttctc 60
gggaaagtcc cagcttagag gatgaggaga ctatatctcg ag 102
```

<210> 2486

<211> 216

<212> DNA

<213> Homo sapiens

<400> 2486

```
gaattcgcgg ccgcgtcgac aataaaacta agctctgatt ctgaaattgt acaacaaagc 60
atgcaaacat cagatggaat attgaatccc agcagcggag gcataccac tacttctgtt 120
cctggaagtc cagatgggtgt ctttgatcaa acttgctag attttgaagt tgagagtgt 180
gggtgtatag ccaatagtac aggtttctcc ctcgag 216
```

<210> 2487

<211> 186

<212> DNA

<213> Homo sapiens

<400> 2487

```
gaattcgcgg ccgcgtcgac cagcccatca ttttctaaga aatactacag gatgcttgaa 60
caatcccttg attttcctta taactgcatt atttactag agtttttttc ccccagggaa 120
atacctttgc tttccctttt catccatatt ttgatcctgg ataaggtctc tacgtgtgcg 180
ctcgag 186
```

<210> 2488

<211> 230

<212> DNA

<213> Homo sapiens

<400> 2488

```
gaattcgcgg ccgcgtcgac gtaagttttt cacagtgtat taggttagtt ttaaatagca 60
cagggccaaa cggagagttt taagtatatcc agtgtgttat tataccactt aattttactg 120
tgtgtaagac ttgactttta acaagtaaag tgagccatca agccttatta aagatcaatt 180
tccacattgc ttgcccatat atgttgtatg tattgttcct tgtgctcgag 230
```

<210> 2489

<211> 276

<212> DNA

<213> Homo sapiens

<400> 2489

```

gaattcgcgg ccgcgctcgac aacacatttt ctttgacgtt taaacctcat tgaattggat 60
tcctgttact tgcagtcaaa agcatcctga caaatacagc ccccaatggt gcaactgcta 120
catctccttg ctacaagtgg ccacgtcctg ctcaaagccc tgctctgcct cccctgcacc 180
ctttgcctaa cttcaatgcc ctctaggaca tgggccctgc ccacagggtc tgctctcttc 240
cctggcttca cttcttgcca tatccctaata ctcgag 276

```

<210> 2490

<211> 123

<212> DNA

<213> Homo sapiens

<400> 2490

```

gaattcgcgg ccgcgctcgac gtctgagatg cttttctcca ccttggcatt cctctccctg 60
gtggcaactg agagctctgt agaccaccta catgcttata aaaaacactc cgtcatcctc 123
gag

```

<210> 2491

<211> 387

<212> DNA

<213> Homo sapiens

<400> 2491

```

gaattcgcgg ccgcgctcgac gtgggggtgtc aaatacttct gaatatttcc agtggtttctt 60
tgttgttctt tacttttctt ttcagacttg ggtgtaactg gatcagattt tctggaattc 120
aaggagagaag ccgagatact tccctcacag aaattgttaa tatcaatgct tagctttctt 180
gccagttcct catcactttt cagttgttct tccatcgctc ttgcctttt ttctgcctgt 240
cttttttctt cttcttcctc ctctgccaac aacctctgta tgtattcttc actggctttg 300
tttttttctt cctcgctggc ccgctgctct gccgccacct tgettatttc ctcttcatat 360
tctcttctca gttccccagg tctcgag 387

```

<210> 2492

<211> 201

<212> DNA

<213> Homo sapiens

<400> 2492

```

gaattcgcgg ccgcgctcgac ctagagtatg aagaattgca aacactttta tctacctctc 60
ctggcttttc tgatcctaata ctgctgcaaa actttgagta aaaccatctc tgcctccaat 120
tccagcagca atcaaagtgt ggccctgata aacagcacca gcctcacctt ggaatttatt 180
aaatatgcaa atgacctcga g 201

```

<210> 2493

<211> 334

<212> DNA

<213> Homo sapiens

<400> 2493

```

gaattcgcgg ccgcgctcgac agaagaactt ccttattaac tattacaata ggatcaaaga 60
ttcttgtgtg aaagctgaca aaatgaccag atctcataaa aatgttgccg atgactatat 120
ccacaccgca gcctgcttac atagcctggc tttagaagag cccacagtca tcaaaaagta 180
cctattgaag gttgctgagc tatttgaaaa actaaggaaa gtagagggtc gagtttcatc 240
agatgaagat ttgaagctaa cagagctcct ccgatactac atgctcaaca ttgaagctgc 300
taaggatctc ttatacagac gcaccagact cgag 334

```

<210> 2494

<211> 210

<212> DNA

<213> Homo sapiens

<400> 2494

```

gaattcgcg cgcgctcgac cgagagagaa gaagagaaaa tgaaagcagc tggttttgca 60
gaagtgtgtg tcgcatgcgc cagttggggc tggaccctcc tgtgtccatc cctgttcccc 120
cagggggctct atcagccctc gtacccacac ctgccctctg aagacaacac aggtctcctgc 180
ttccacctcg cccccaccgg tgtcctcgag                210

```

<210> 2495

<211> 280

<212> DNA

<213> Homo sapiens

<400> 2495

```

gaattcgcg cgcgctcgac gccatagata ccatacagta aacatcactc ttttaaaaaa 60
tattttttat ttccggcataa tttcagagtt ttacaaaagt tgcaggaata gtacaaagaa 120
ttctcttcac ttggataacct aaatgttaat attttactac atttgcttta tccttttctt 180
ttctctgtaat ttgtatttga accatttgaa agtaagtagc agggcggggc cctgtgttgt 240
ggctcacgcc tgtaatccca gcactcaggg cgcgctcgag                280

```

<210> 2496

<211> 695

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (338)

<400> 2496

```

gaattcgcg cgcgctcgac gtattttagt cgcagaaggg gacgtaaagt ggaggagagc 60
tgtagcagaa atgaggcggg tgccatcaca tggctgagtt attccttctc cctgagcct 120
cctgttctct atctgtgtga tggggatata gtaattctta tatagattga tgaggattaa 180
gtgagatttt gtatattgat agaatttagc atagcactgg ccacagagta gatgtgtaat 240
aagtggtagt tttcttcttt tctgtgattc tcatttttaa gaagaatgac ttacttgatt 300
tttttaaaat aaaaattgta taggtattta tttttagnaa ctcaagccat accaggaaat 360
acaaaaaaa aaatctaata aatacctcca agatcccacc attgagaaat aatcagcgtc 420
agcagtttga tgtccagcaa cccagacatc tctttctgca cgcctataca tgttaaagge 480
tgattgggca tcagtggata gatctatagg aagaaatgga attatactat aatgctgttt 540
ttaagaaaaa caagatatgc acaatataat tttatttgaa ttttaaccaga aaaaagagac 600
actaaatgaa tctaaaggaa ttattgaact tgagacattt ttcttttctt ttctcttttt 660
ttgagactga gtctcactct gtcacccaac tcgag                695

```

<210> 2497

<211> 213

<212> DNA

<213> Homo sapiens

<400> 2497

```

gaattcgcg cgcgctcgac cctaaaccgt cgattgcatt cttgagatat acctcacttg 60
gttttgctac aggtattttg aagcttttat gaattgcctg ccctttttta aggtgaaatg 120
ttctttgctt cctataatgc tatgttatgg tctactttgc ctgatattaa tgccattgtt 180
tttttaactc atgtgtttga atggttactc gag                213

```

<210> 2498

<211> 221

<212> DNA

<213> Homo sapiens

<400> 2498

```

gaattcgcg cgcgctcgac tgactaatca aactaacctt aaaacaaatg atagccatac 60
acaacactaa ccatcatcat catcacatga ccatgaccat cactatcacc atcctcatca 120
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24

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US99/24206

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) :C07K 14/435; C12N 15/12

US CL :530/350; 536/23.5

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 530/350; 536/23.5

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EMBL, Genbank, EMBLest, Genbankest, USPAT issued

search terms corresponding to SEQ ID NO: 252, 1538, 1598, 1734, 1881, 2012, 2104, 2114, 2183, 2348

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	Database Genbank on STN, National Center for Biotechnology Information (Bethesda, MD), Accession Number AA743929, NCI-CGAP, 'National Cancer Institute, Cancer Genome Anatomy Project (CGAP), Tumor Gene Index,' 23 January 1998 positions 19-121 relevant to positions 126-24 of instant SEQ ID NO: 2183.	4, 8
X	Database Genbank on STN, National Center for Biotechnology Information (Bethesda MD), Accession Number AF034544, MOEBIUS et al., 'Direct Submission,' 06 march 1998 positions 354-634 relevant to positions 2-282 of instant SEQ ID NO: 2114.	4, 8
X	Database Genbank on STN, National Center for Biotechnology Information (Bethesda MD), Accession Number AA298572, ADAMS et al., 'Initial assessment of human gene diversity and expression patterns based upon 83 million nucleotides of cDNA sequence,' 18 April 1997, positions 49-229 relevant to positions 21-201 of instant SEQ ID NO: 2012.	4, 8

☒ Further documents are listed in the continuation of Box C.
 ☐ See patent family annex.

* Special categories of cited documents:	* T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
* A* document defining the general state of the art which is not considered to be of particular relevance	* X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
* E* earlier document published on or after the international filing date	* Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
* L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	* &* document member of the same patent family
* O* document referring to an oral disclosure, use, exhibition or other means	
* P* document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

12 FEBRUARY 2000

Date of mailing of the international search report

29 FEB 2000

 Name and mailing address of the ISA/US
 Commissioner of Patents and Trademarks
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 Washington, D.C. 20231

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JOHN S. BRUSCA

Telephone No. (703) 308-0196

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US99/24206

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	Database Genbank on STN, National Center for Biotechnology Information (Bethesda, MD), Accession Number R24770, HILLIER et al., 'The WashU-Merck EST Project,' 20 April 1995, positions 1-209 relevant to positions 32-240 of instant SEQ ID NO: 1880.	4, 8
X	Database Genbank on STN, National Center for Biotechnology Information (Bethesda, MD), Accession Number AA632004, NCI-CGAP, 'National Cancer Institute, Cancer Genome Anatomy Project (CGAP), Tumor Gene Index,' 28 October 1997, positions 172-405 relevant to positions 257-24 of instant SEQ ID NO: 1538.	4, 8
X	Database Genbank on STN, National Center for Biotechnology Information (Bethesda, MD), Accession Number AA027135, HILLIER et al., 'WashU-Merck EST Project,' 09 May 1997, positions 1-343 relevant to positions 371-29 of instant SEQ ID NO: 252.	4, 8

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US99/24206

Box I Observations where certain claims were found unsearchable (Continuation of Item 1 of first sheet)

This international report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

Please See Extra Sheet.

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
1-8 SEQ ID NOS: 252, 1538, 1598, 1734, 1880, 2012, 2104, 2114, 2183, and 2348

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US99/24206

BOX II. OBSERVATIONS WHERE UNITY OF INVENTION WAS LACKING

This ISA found multiple inventions as follows:

This application contains claims directed to more than one species of the generic invention. These species are deemed to lack Unity of Invention because they are not so linked as to form a single inventive concept under PCT Rule 13.1. In order for more than one species to be searched, the appropriate additional search fees must be paid. The species are as follows:

The nucleic acids of SEQ ID NOS: 1-2500 and the corresponding polypeptides encoded by the nucleic acids of SEQ ID NOS: 1-2500.

The claims are deemed to correspond to the species listed above in the following manner:

All claims are drawn to the species indicated above.

The following claims are generic: 1-8

The species listed above do not relate to a single inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons: Each species is drawn to a different nucleic acid or corresponding encoded polypeptide. There is no disclosed relationship between the sequences of each individual species.

Restriction to a single species has been waived sua sponte and the Applicants are permitted to have ten species searched without payment of additional fees. The Applicant's representative Suzanne Sprunger elected telephonically on 01 February 2000 to have the sequences corresponding to SEQ ID NOS: 252, 1538, 1598, 1734, 1880, 2012, 2104, 2114, 2183, and 2348 searched.

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